Association of Indian Universities

APPLICATIONS ARE INVITED FOR ADMISSION TO ACADEMIC PROGRAMMES (FULL-TIME) FOR THE SESSION 2000-2001

BACHELOR'S PROGRAMMES :
(i) ARCHITECTURE (5 Years)   68 Seats
(ii) PLANNING (4 Years)   22 Seats
ELIGIBILITY: (i) Pass in Senior School Certificate Examination of CBSE (12th Stage) or any other examination recognised as equivalent, with atleast 60% marks or above (for SC/ST candidates will be a pass with a minimum aggregate of marks obtained) in four passed subjects (including English, Physics, Mathematics)and (ii) Pass in 10th Stage with Science. Relaxation of 5% marks for (a) Children/widows of military/paramilitary forces/personnel killed/disabled in action during hostilities, and (b) Physically Handicapped
SELECTION: Candidates are selected through Entrance Tests held in Delhi Test-I will be held on 9 July, 2000 Candidates selected on the basis of merit in Test-I, will be required to appear at the Test-II on 11 July, 2000. Provisional Admission List based on Test-I & Test-II will be announced on 18 July, 2000 afternoon
RESERVATION OF SEATS: SC-15%, ST-7-1/2%, Children/widows of Personnel of military/para-military forces killed/disabled in action -5%, Physically Handicapped -- 5%, and candidates belonging to the following states/UTs where there are no facilities for architectural and planning education (Andaman & Nicobar, Arunachal Pradesh, Assam, Dadra & Nagar Haveli, Daman & Diu, J & K, Lakshadweep, Manipur, Meghalaya, Mizoram, Nagaland, Pondicherry, Sikkim, Tripura)-10% Himachal Pradesh students may apply if Reg Engg College, Hamirpur does not start a course in Architecture this year
MASTER'S PROGRAMMES :
(i) Architecture (35 seats) with Specialisations in - (a) Architectural Conservation (b) Industrial Design (c) Urban Design, (ii) Building Engineering and Management (15 Seats), (iii) Landscape Architecture (15 Seats) , and (iv) Planning (70 Seats) with Specialisations in (a) Environmental Planning (b) Housing (c) Regional Planning (d) Transport Planning (e) Urban Planning
ELIGIBILITY: (i) M.Arch - Open to B Arch /B Planning or equivalent Degree holders For M.Arch (Industrial Design) candidates holding B.Arch or equivalent Degree are eligible, (ii) M B E M - Open to B.Arch/B.E (Civil)/B Arch Engg or equivalent Degree holders, (iii) M L.A. - Open to B.Arch/B Planning or equivalent Degree holders, (iv) M Planning - Open to B.Arch/B.Planning/B E (Civil)/B Arch Engg or equivalent Degree holders Candidates possessing Master's Degree in Geography/ Sociology/Economics are also eligible for the specialisations in Environmental Planning, Housing (Geographers are not eligible for Housing), Regional Planning, Urban Planning. Candidates possessing Master's Degree in Economics/Statistics/Operations Research are also eligible for Specialisation in Transport Planning (v) 55% or more marks in aggregate at the qualifying examination (50% marks in respect of SC/ST candidates)

Sponsored candidates must have a minimum two years' full-time work experience
SELECTION: Selection will be made from among the applicants called for interview and/or test, on 4, 5 and 6 July, 2000 forenoon on the basis of merit. Candidates with valid GATE Score or UGC(NET) JRF are eligible for scholarship.
RESERVATION OF SEATS: SCs - 15% and STs 7-1/2%. Candidates sponsored by Central/State Government Departments, Statutory Organisations as well as Public Institutions, are admitted under Sponsored Category.
PG SCHOLARSHIPS: The distribution of the limited number of scholarships @ Rs 2500/- p m to GATE/UGC(NET)JRF qualified candidates shall be made on merit in respective category (i e General and SCs/STs) as per the prescribed guidelines
DOCTORAL PROGRAMMES in the fields of Architecture, Planning, Urban Design, Industrial Design, Architectural Conservation, Landscape Architecture, Urban Planning, Regional Planning, Environmental Planning, Housing, Transport Planning, and Building Engineering & Management
ELIGIBILITY: Master's Degree in any of the above courses conducted by the School or its equivalent from any other recognised University/Institution with a minimum of 55% aggregate marks or Bachelor's Degree in Architecture/Planning of the School or its equivalent from any other recognised University/Institution with a minimum of 55% aggregate marks and five years' experience in teaching/research/professional practice Relaxation in aggregate marks as specified above, may be made in the case of exceptionally qualified applicants
RESERVATION OF SEATS : As per Government's directive for SC/ST candidates
FELLOWSHIP: All Scholars with a Master's Degree in the respective disciplines are eligible for fellowship of Rs 2400/- per month Scholars with Bachelor's Degree in Architecture/ Planning of the School or its equivalent with a valid GATE Score/UGC (NET)JRF are eligible for the fellowship of Rs 1800/- per month In addition, contingent grant is given to the recipients of fellowship Inservice candidates are not eligible for fellowship and contingent grant
TRAVEL ALLOWANCE: Outstation PG and Ph D candidates called for interview will be paid travelling allowance (one way for PG candidates & both ways for Ph D candidates) for journey from the Railway Station nearest to their residence/place of work and by 2nd Class Railway Fare along the shortest route (Within India) NRIs may apply directly with Bio-Data on plain paper Foreign nationals are required to apply through diplomatic channels of the Government of India

IMPORTANT DATES

	BACHELOR'S PROGRAMMES	MASTER'S PROGRAMMES	DOCTORAL PROGRAMMES
1 (i) Issue of Application Forms Commences on.			
(a) Available from UCO Bank Branches at Delhi . IIPA (I.P Estate, Ring Road), Defence Colony (Near Mool Chand Flyover), Connaught Place (Near Marina Hotel), Karol Bagh (Arya Samaj Road), Som Vihar (R.K.Puram), Punjabi Bagh (Ring Road) against payment of the Application Fee of Rs. 400/- in cash (during working hours only).	28.4 2000	28 4.2000	———
(b) By Post from the School against payment of the Application Fee of Rs. 400/- by Demand Draft on SBI/UCO Bank in favour of "School of Planning and Architecture" payble at New Delhi.	28.4.2000	28 4.2000	28.4.2000
(ii) Last date of issue of Application Forms :			
(a) By post from the School.	31.5.2000	31 5.2000	12.6.2000
(b) From notified UCO Bank Branches	07.6.2000	07.6.2000	———
2. Last date of receipt of completed Application forms by the School at the Counter and by Registered post.	08.6.2000	08.6.2000	26.6.2000

**D.R. BAINS
REGISTRAR**

IN THIS ISSUE

Self-Financing Courses in Universities and Colleges

S.D. Tripathi*

There have been repeated statements made by various funding organisations that the educational institutions devoted to higher education should review their position with respect to the grants that they have been getting so far. The time has come when the institutions of higher learning have to find their own resources to keep them going. The government cannot support them for ever. Their financial dependence on the central/state governments must be reduced to a minimum level. This is indeed very desirable also even if the funding agencies do not say it very explicity. In fact, the same thing is stated indirectly when the funds are not released on time or when they are not increased in proportion to the increased salaries/prices etc. The administrators of these educational institutions have understood the financial constraints of the funding agencies and have been giving serious thought as to how to face this challenge. One of the methods which specially the universities have adopted is to start a few job-oriented self-financing courses and charge reasonably high fees from the students joining these courses. At present, there seems to be a lot of competition amongst various universities of the country to run all such courses which have immediate job potential. For example, the courses in Computer applications, Management, Telecommunications, Environment protection, Biotechnology, Information technology etc etc are in great demand. The students' guardians do not mind paying heavy fees for these courses and getting a diploma/degree which could enable their wards to find a suitable job sooner than later.

Caution is required

Running a few self-financing courses by the universities is not a bad idea. On the contrary, in several cases it has really helped many universities set up new departments without any outside financial assistance. The students have also been benefited by joining these courses. In fact one cannot even think of starting such courses unless they are self-financing in their nature. The needed infrastructure as well as the faculty to teach these courses cannot be arranged at all because the required laboratory, library and manpower are so costly that the universities just cannot make them available on their own. See the change which has taken place in the meantime! By now, running of these courses in universities/colleges all over the country has been accepted, and has become a normal academic activity. However, there are a large number of associated problems which must be tackled and taken seriously. A very typical example is as follows : suppose an institution which does not have any facility to run a course in Biotechnology wants to start a M.Sc. degree in Biotechnology. Evidently, such a course can be started by a regular department of that university which is closest to the subject of Biotechnology. Such a regular science department would be either the department of Bio-Sciences/Biology or some other department. A faculty member of that department who either understands the subject of Biotechnology to some extent or who can just manage to run such a course, would be given

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the responsibility to start that course. This would be then properly advertised so as to attract students from all over the country, who are interested in joining that course and can afford to pay the required fees. The infrastructure like classrooms, library etc available in the regular department will be made available to the new students. However, the fundamental requirement of a few "competent" regular faculty capable of teaching all the papers of that course is not there. There is no suitable laboratory either, and the needed library has not even been thought of! These things get attention only when the students join the course and begin pointing out their genuine difficulties to the authorities concerned. The course incharge depends mostly on the 'guest faculty' who are available not according to the need of students, but only by chance or by some adhoc arrangement. The guest faculty have responsibilities of their own institutions and just cannot go away anytime they wish or they are required. The result is that the teaching of the course suffers. In every course there are some auxiliary papers which can be taught by some local faculty, and the students are mostly kept engaged by such teachers. Thus the real teaching of the course cannot be carried out and an element of disappointment among students can easily be observed. Even if a small laboratory and some books can be arranged, that is hardly enough to run a course for which there is tough competition in the job market. But the course is somehow conducted leaving the students to console themselves with the 'degree' which they are awarded. This is a highly unfair and deplorable fact. The course should not have been started at all unless the institution had made a minimum of required preparation viz atleast two teachers to take regular classes, a reasonable laboratory and needed books/magazines/periodicals.

Side effects

There is another undesirable aspect of running a self-financing course which must be mentioned. The regular department which runs a self-financing course is bound to ignore the work of its own to some extent, if not to a large extent. In order to meet the requirements of the self-financing course and having charged a high amount of fees, the department is morally bound to care for them. The administration is generally least concerned to provide help to the department to sort out difficulties and hardships of new students. In fact the entire burden is thrown over on to the shoulders of the professor-in-charge who has to practically forget his own subject (teaching as well as research) only to see that the course is somehow conducted. Usually, the professor-in-charge appointed for the purpose in one of the most devoted and competent teachers of the

regular department, and it is only he who has to sacrifice his own subject in order to do justice to the administration of a self-financing course. The only interest which seems to be served is that the department is able to generate a good amount of funds very much like the private coaching institutes! The main objective is, therefore, completely defeated. The students of the regular department have also to suffer. In their own department, they find that there is a new course being conducted by their own department which has a lot of job-potential as compared to their own courses. They feel demoralized and dejected when their programme gets sidelined as compared to the new self-financing course. The students of self-financing course walk with an air of superiority around them in a department which belongs to the regular students.

Merit is ignored

Admissions into a self-financing courses are granted on the basis of a written examination/competition. The fees already announced in the brochure is so high that the poor but meritorious students do not even sit in those examinations. The course is just out of their reach. This is evidently in contrast with the declared policies of the government clamouring for social justice. Some methods, therefore, have to be devised so that the merit is not ignored and the poor students also get a chance to benefit from these self-supporting courses.

Future of self-financing course

At the moment all sorts of courses in Computer Applictions, Electronics and Telecommunications, Management, Information technology, Biotechnology, Toursim, Pharmacy etc are in great demand. How long these courses will remain so, is a good question. There cannot be a definite answer to these questions, but some analysis can surely be made. Looking to the high demand for these courses and the prospects of good earnings, a large number of private institutes, universities, and colleges have started these courses and a large number of students are getting degrees in these courses. Very soon their demand is likely to dwindle, as is already happening in management courses, and these courses will be abandoned in favour of new courses having job potential. This will be the case with many of such courses. But some of these will survive for a long time to come and will probably become regular courses everywhere. Computer Science, Electronics and Telecommunications, Biotechnology are perhaps some of the courses which will survive for a long period of time and will require the status of a regular department like other basic sciences. ❑

Customer Delight in University Environment
An Exploratory Case Study of B.Tech Students

Ramachandra Aryasri*

Education is the manifestation of perfection already in Man.[1] Universities, the facilitators, are considered to be the temples of learning. University has a unique role in imparting education that leads to man-making, character-making, life building and assimilation of ideas.

The ultimate goal worth pursuing for any university is the student delight. The student is our customer. 'The customer is not outsider on our premises. He is the purpose of it. He is not dependent on us, we are dependent on him'. Gandhiji's words about customer are worth-recalling in this context.

So, is the present student delighted while leaving the portals of the university? Does he have any complaint about the university's functioning?

Customer delight

Our customer is our student. The student gets delighted when the service provided meets his/her expectation. The delight can be described as a function of the relative level of expectation against the reality of the service.

The customers are highly delighted if the results exceed their expectations; if the results match expectations, then customers are delighted; and the customers are dissatisfied if the service falls short of their expectations.

In the present context, where university enjoys monopoly, it can get away even without considering the variables that influence the student delight. In the years to come, in the light of the resource constraints ahead, the universities also have to struggle to catch the attention of the students.

Some of the universities have already started moving into transitional stage between product orientation and marketing (customer) orientation[2], it is not out of place to state that unless, we pay attention to the factors that lead to the Student delight, we cannot be sure of the brand equity for our academic programmes.

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Against this background, an attempt has been made to measure the student delight by collecting data on the variables influencing it. The student delight is defined, for this purpose, as given below :

$$SD = f(A,B,C,D,E,F,G)$$

Where SD = Student delight;

A = academic issues;

B = administration in the college/university;

C = infrastructure;

D = placement obtained in the campus interview;

E = Academic progression;

F = Outreach activities such as Industry orientation; and

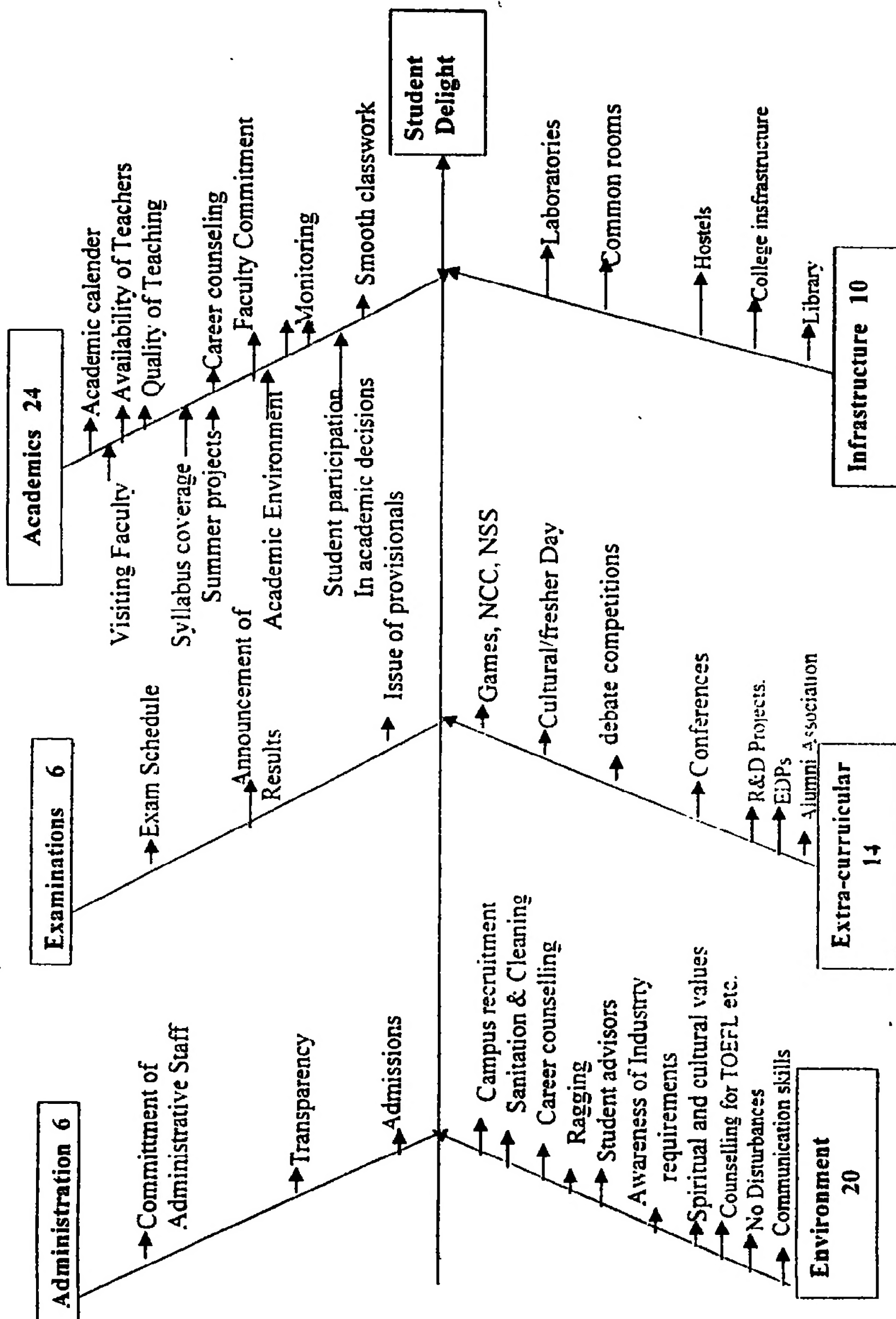G = other factors such as Motivation as perceived by the student.

The degree of motivation of the student decides the degree of his/her delight.

Cause and Effect

This technique can be presented through a figure called Fish-bone diagram. It is essentially an investigative tool which outlines systematically all the possible causes, that give rise to the effect. This is used to analyse the problem and develop solutions for implementation. This is also called *Ishikawa diagram*, as it is popularised by Dr. Ishikawa[3], an important functionary in the Japanese Union of Scientists and Engineers. The figure outlines the factors or causes of student delight. The approximate weightage each factor or cause enjoys as perceived by this study is also marked on it.

To assess the degree of student delight, an exit study as an exploratory effort, was recently conducted among B.Tech graduates (admitted in 1995 and completed the course successfully in 1999) in one of the leading Technical Universities in south India. 'The exploratory studies are more qualitative in nature and based on unstructured techniques... In the practical setting, exploratory research may provide enough information for the decision-maker's need'.[4] There have been increases in the use of qualitative research such as employment of group discussions with small samples without any large scale follow

Fig. 1. Ishikawa's Fish-bone Diagram.

Academics 24
- Academic calender
- Availability of Teachers
- Quality of Teaching
- Visiting Faculty
- Career counseling
- Faculty Commitment
- Syllabus coverage
- Summer projects
- Monitoring
- Announcement of Results
- Academic Environment
- Smooth classwork
- Student participation In academic decisions
- Issue of provisionals

Examinations 6
- Exam Schedule

Administration 6
- Committment of Administrative Staff
- Transparency
- Admissions

Infrastructure 10
- Laboratories
- Common rooms
- Hostels
- College insfrastructure
- Library

Extra-curruicular 14
- Games, NCC, NSS
- Cultural/fresher Day
- debate competitions
- Conferences
- R&D Projects
- EDPs
- Alumni Association

Environment 20
- Campus recruitment
- Sanitation & Cleaning
- Career counselling
- Ragging
- Student advisors
- Awareness of Industry requirements
- Spiritual and cultural values
- Counselling for TOEFL etc.
- No Disturbances
- Communication skills

Student Delight

up.[5] This study is based on the personal discussions, the author had, with the various groups of randomly selected students and their responses to an unstructured questionnaire containing 40 issues concerned with university environment. The present paper is a summary of the findings of this study.

This paper also outlines the achievements of this batch of the students. Since it deals with the results of the survey conducted on final year B.Tech students graduated in 1999 only, this should not be constructed as a report on total performance of the University.

Objectives of the Study

This study aims at

a) Studying and analysing the relationship between the different academic performance levels i.e. at Plus Two, Engineering Entrance Test and B.Tech by testing certain hypotheses;

b) assessing the level of the student delight in the university environment by collecting data about their perceptions about the facilities and functioning of the college/university;

c) to identify the barriers, as felt by the students, for their improved performance; and

d) suggesting certain remedial measures, the universities could think of, for ensuring enhanced levels of Student delight.

Hypotheses

The following are the hypotheses tested here to study and analyse the relationship, if any, among the academic performance levels of the respondents :

H1. The academic performance at Plus Two level determines the Rank in the Engineering Entrance Test.

H2. The rank obtained in the Engineering Entrance Test has no bearing on the aggregate percentage of marks obtained by the end of B.Tech.

H3. The academic performance at Plus Two level and the engineering entrance test determines the aggregate percentage of marks obtained by the end of the graduation.

H4. The percentage of graduates passing out with first class and first class distinction is higher than the percentage of the graduates with second class or lower class.

H5. The degree of student delight is more in respect of those who secured higher ranks in the Engineering Entrance Test and obtained admission into the B.Tech course than otherwise.

Sample size and composition

In all, a random sample of 210 (21 per cent of the total population) students (including 82 girls). This sample is organised into two groups based on the ranks secured by the students in their Engineering Entrance Test. The first group of 105 students consisted of all the students admitted on merit basis and the second group of similar size consisted of all the students admitted, of course on the basis of rank but under a specific quota i.e., Girls, SC/ST, Ex-servicemen, Physically handicapped, NCC, Non-local or Sports.

Methodology

To study and analyse the academic performance of these graduates, data were collected about the following :

■ the group percentage of marks obtained by each of the student in three subjects Maths, Physics and Chemistry at Plus Two Examination, hereafter, in this paper, referred to as XI;

■ the rank obtained by the student in the Engineering Entrance Test, henceforth, throughout this paper, referred to as X2; and

■ The aggregate percentage of marks obtained by each of the students by the end of the B.Tech course, hereafter in this paper, referred to as X3.

To assess the level of student delight in the university environment, a list of students' expectations, forty issues in number was given to each of sampled students. They were asked to tick certain of their expectations, which could not be met by the end of their course in the university, for any reason. They were also free to furnish reasons for their disappointment, if any. All the factors ticked as problem areas were given a weightage of 'one' unit and those factors which satisfied the student in every respect were assigned with 'two' units. The maximum score was 80 units.

■ The individual score, in terms of units, was worked out to analyse the level of satisfaction of each of the respondents. This is referred to as X4, throughout this study.

Statistical Tools Used

The data, thus collected, were analysed using certain statistical tools such as Mean, Standard Deviation, Correlation, Regression, T-test, Goodness of fit and other related techniques.

Before discussing the results of the study, it is worth looking at the highlights of the impressive achievements of this batch.

Highlights of 1995-99 batch of students

- 120 graduates were selected at the campus interviews by various prestigious organisations such as BHEL, CMC, Wipro, ECIL, Satyam Computers, Infosys etc.

- 30 graduates attended summer training programmes in several industrial organisations including software companies.

- 80 graduates obtained admission for MS programme in US universities and 30 others could obtain visas.

- 20 graduates participated in state level sports events.

- 360 graduates took part in NCC and NSS camps.

- 20 graduates presented technical papers in the national level workshops organised by the faculty.

- The project works of six graduates won the acclaim of the industry associations.

- 80 graduates won the national level elocution, essay writing, cultural and debate competitions.

- 92 students obtained admission to Management/ M.Tech/MS programme in Indian Institutes of Technology (IITs) and Indian Institutes of Management (IIMs) and other prestigious institutions.

- 18 extension-lectures, by successful entrepreneurs/industry experts/US based Alumni, were orgnised for this batch on selected topics of current interest.

Results of the study

The goodness of Fit test conducted for the two groups in the sample revealed the following :

Table 1 : Mean and Standard Deviation for two groups of respondents

Group	Arithmetic Mean	Standard Deviation
I	66.54	11.8
II	67.16	8.39

Goodness of fit test showed that the two samples are drawn from normally distributed population at the 95% confidence level.

H 1. The academic performance at Plus Two level determines the Rank in the Engineering Entrance Test.

Table II shows Arithmetic mean, standard deviation and correlation among the Variables i.e., the group percentage in the Plus Two examination (X1); rank obtained in Engineering Entrance Test (X2); and the aggregate percentage obtained in the B.Tech Examination (X3).

Table II : Mean, standard deviation and correlation Coefficient

V..riables	Arithmetic Mean	Standard Deviation	Correlation coefficient 1	2	3
Plus Two level Group Percentage (X1)	66.54	11.8			
Rank obtained in Engineering Entrance Test (X2)	7591.34	12842.51	-0.12*		
Aggregate Percentage of Marks at B.Tech (X3)	67.6	8.39	0.12*	-0.19*	

*P<.05

Table II shows that the correlation between variables X1 and X2 is negative (-0.12) which means that higher the percentage one gets in the Plus Two level, the lower the rank one is likely to get in the Engineering Entrance Test and vice versa. It means that the academic performance at Plus Two level determines the rank in the Engineering Entrance Test.

H 2. The rank obtained in the Engineering Entrance Test determines the aggregate percentage of marks in B.Tech.

The correlation between variables X2 and X3 is also negative (-0.19) which also means that the lower the rank one gets in the Engineering Entrance Examination, the higher the aggregate percentage one is likely to get in the B.Tech examination, and vice versa. It may be noted that Lower rank means better performance and vice versa. It means that better performance at the engineering entrance test determines the performance level at the graduation also.

Further, the correlation between X1 and X3 is positive but weak (-0.19). The higher the group percentage one gets at the Plus Two examination, the higher the aggregate percentage one is likely to get at the B.Tech level. However, the influence of X1 on X3 is only to an extent of 19%.

H 3. The academic performance at Plus Two level and the engineering entrance test determines the aggregate percentage of marks obtained by the end of the graduation.

Table III : Table showing regressino of X1 and X2 on X3

Variable	Beta	T value	R square adjusted
X1	0.72	1.49*	0.04
X2	-0.00001	-2.67**	

*P<0.10, **P<0.01

This means that the two variable X1 and X2 together explain 4% of the variance of X3. However, Beta of X2 is negative. This means that those who get higher rank in the engineering entrance test are likely to get lower percentage at the graduate level. Though this is logical, it is a poor indicator (4%) of the likely percentage at graduation level one gets.

This supports partially the above hypothesis which means there are other factors that influence variable X3.

One is likely to get better percentage at X3, if one works hard, shows up higher degree of motivation, greater maturity attains better level of interpersonal skills and academic insight. Other prominent factors are : student's family background, ambition, priorities, responsibility, awareness levels, communication skills, exposure to industry environment etc. However, these factors could not be included in the study.

Though it is difficult to quantify the influence of each of these factors, it can be stated that these collectively influence X3 by 96%.

Table IV : Table showing T-Test results for the two groups

Variable	Mean for Group I	Mean for Group II	T value
Plus Two level Percentage (X1)	68%	65%	1.96**
Rank obtained in Engineering Entrance Test (X2)	988	14194	-8.67***
Aggregate Percentage of Marks at B.Tech (X3)	69.5%	64.7%	4.29***

*P<0.10, **P<0.05, ***P<0.001

This table reveals that Group I secured, both at Plus Two exam and Engineering Entrance Test, higher average marks and lower ranks respectively than Group II.

At B.Tech level, though Group I is ahead of Group II, Group II is not much lagging behind, despite the initial large academic differential.

H 4. The percentage of graduates passing out with first class and first class distinction is higher than the percentage of the graduates with second class or lower class.

Table V : Frequency distribution of the marks obtained and the academic progress registered in B.Tech as compared to Plus Two Examination

Marks	No. of respondents at Plus Two level (f1)	No. of Respondents at the B.Tech level (f2)	Difference (f1-f2)
40-50	21	4	17
50-60	46	38	8
60-70	55	93	-38
70-80	60	58	2
80-90	24	17	7
90-100	4	—	4
Total	210	210	

The above frequency distribution table reveals the number of respondents and their respective levels of the academic performance both at the Plus Two level and Graduation. It has two implications :

a) The graduation particulars support the above hypothesis that the number of the respondents having obtained first class with distinction (58) and first class (93) is comparatively very significant leaving the statistical distribution, if to be drawn, highly skewed. The inference could be that something is wrong with the whole system. It is worth noting here that Deming, the quality expert, emphasises that 85 per cent of the quality problems are due to the system while 15 per cent are due to people.[6] In a group of 210 respondents, we have 151 graduates with first class and above level of performance! Why can't we design a system, which can sharply distinguish the talent?

b) The above table, further, shows that 17 participants getting marks fewer than 50 in Plus Two level, could score higher in B.Tech examination; 8 respondents scoring between 50-60 marks could move to higher slots. However, those who scored higher i.e, 60% and above percentages at Plus Two level have now scored less.

In other words, those who scored high ranks could not maintain the same lead over others. This may be because of their disappointment with the academic environment prevalent in the University as a whole. The system could not help the young boys and girls to sustain the same degree of competitive edge. We can appreciate if one scores better. How about those who secure state rank at the entrance test but do not continue to be equally meritorious? What prevents them to sustain their initial enthusiasm?

This leaves only one alternative for further study : the study of the academic environment as a whole.

H 5. The degree of student delight is more in respect of those who secured higher ranks in the Engineering Entrance Test :

The following frequency distribution presents the particulars of delight levels of the respondents :

Table VI : Frequency distribution of student delight

Student delight (in Units) Class limit	No. of respondents (Frequency)	Percentage
20<30	11	5.24
30<40	62	29.52
40<50	70	33.33
50<60	44	20.95
60<70	17	8.10
70<80	6	2.86
Total	210	100.00

The above table reveals that majority of the respondents expressed their delight between 40-50 units; followed by next best in 30-40 units. In other words, 68 per cent of the respondents indicated less than 50 units of delight.

A hypothesis test administered to obtain average satisfaction of each group reveals the following average levels of student's delight (X4) and the results of T ratio.

Table VII : Average level of Student' delight and T Ratio

Group	Mean	T Ratio
1	41.16	-6.14***
2	49.57	

***$p<0.0001$

This test supports the above hypothesis. It reveals that the respondents of Group II are more satisfied than those of Group I. In other words, the better rank holders at the Engineering Entrance Test are the most disappointed lots.

The T-test results in Table IV, also, confirm this viewpoint.

What makes our meritorious students so much disappointed?

Hindrances to Student Delight

The following are some of the students' prominent perceptions that hindered their delight in the university environment.

Academic expectations

Only ten (10) per cent of the respondents agreed that their academic expectations were met.

Syllabus

Sixty (60) per cent of the respondents felt happy that they studied industry relevant syllabus. However, there were observations that the syllabus, for certain courses/subjects, was not updated in tune with ever changing industry requirements particularly in case of Computer Science Engineering.

Laboratories

Fifty (50) per cent of the respondents averred that the college laboratories were not modernised on par with upcoming private engineering colleges. The funds from the state government were felt inadequate to meet the requirements. The funds from schemes such as Modernisation and Removal of Obsolescence (MODROBS) from AICTE were being tapped successfully by a very few departments.

Academic Calendar

The academic calendar was seldom adhered to. This disturbed the prospects of at least eight (8) graduates' academic progression. In the name of strict adherence to the academic calendar, the concerned department did not take initiative to hold project-viva earlier than the date scheduled. A particular case could be judged based on its merit, considering the autonomy the constituent colleges are conferred with.

Faculty from certain departments is footloose

Sixty (60) per cent of the respondents cried that the faculty teaching computer science related subjects were not available.

Inadequate academic pressure

Sixty five (65) per cent of the respondents expressed that they were not subject to any academic pressure during their four years of study in the college. There was no homework, no suggestions to read additional study material, no direction to refer to specific journals etc. These respondents feel that they find difficult to compete, in interviews, with graduates from prestigious colleges where learning was intense and focused.

Library facilities

The college library was inadequate, as indicated by 60 per cent of the respondents, in terms of qualified staff, journals, reference books and multiple copies of the prescribed textbooks.

Academic progression

Twenty (20) per cent of the respondents lamented that they could not find guidance within the college for GRE/GMAT/TOEFL tests. Also the syllabus for

English subject in the first year was to be framed in line with the syllabus for these tests. The unanimous choice of these respondents was for an optional course in English in the second semester of third year to facilitate the students to attempt successfully these career-moulding tests.

Monitoring of students' individual performance

Ten (10) percent of the respondents felt that it was necesary that the individual students' performance has to be monitored by the HoDs/Senior professors to facilitate the students to complete their studies with no backlogs. These respondents were prepared to attend the revision classes.

Second valuation of answer scripts

Thirty (30) per cent of the respondents, particularly those, who had backlogs, felt the need for the second valuation of their answer scripts. The marks obtained by the students in certain subjects were so low; it is stated that they could not believe as they performed extremely well in those papers. They felt that there could be second valuation at least in the cases where pleaded for.

Nomination of student representatives to the Board of Studies Meetings

While framing the new rules and regulations, eighty (80) per cent of the respondents felt that the authorities should consider involving the student representatives (chosen on merit basis) also in the discussions and deliberations to facilitate clear understanding of the 'shared vision.'

Where the driving force is provision of improved services to the customers, Total Quality Management methodology also insists that the customers be included in the planning process.[7]

It is further felt that the industry experts occasionally visit such board of studies meetings and chairman's views about the restructuring of courses could be endorsed automatically.

Summer projects

Forty (40) per cent of the respondents felt helpless about working on industry projects during the times of their leisure or summer holidays. They said that they expected the college to help them out. They complained that only such students having good contacts with the senior executives in Industry could get advantage. In addition, it is felt that the students from the college in a better industrial location such as Hyderabad were in advantageous position. They feel that it is the need of the hour to institutionalise,

as in the case of premier institutes, the opportunities available with industry for summer training programmes in the country.

Personality Development Programmes

Forty (40) per cent of the respondents felt that they could have shown better performance in the campus selections had they been given orientation in communication skills and interview techniques. They felt that the Technical English, they studied as a subject in the first year of B.Tech, was hardly adequate in equipping them with communication skills required for attending confidently the interview. They, further, felt that mock interviews could have been organised before the campus selections were scheduled.

Alumni Association

Eighty (80) per cent of the respondents said that the alumni association was not functioning despite good amount of funds to its credit. Several executives, erstwhile alumni of the college, visit the city for various reasons, official or personal. If the faculty could liaison with them for a lecture in the college, perhaps, the benefits of this could be multiple. The respondents felt that the alumni association could be managed jointly by the faculty and the student members.

Entrepreneurship Development

Sixty (60) per cent of the respondents felt disappointed for not getting any academic input for entrepreneurship development. The students were prepared to attend any special lectures (off their timetable).

Final Year Projects

Seventy five (75) per cent of the respondents felt that they should do final year project on an emerging area/topic in the industry and they wished that this would unfold brighter prospects for their career in industry. To their disappointment, until the last minute, they could not get clear direction from their faculty. With the result, they had to hurry up with some run-off-the mill topic to complete the project like a ritual.

Spiritual and Cultural Programmes

Sixteen (16) per cent of the respondents said that they looked for some programmes on spiritual and cultural values besides Indian Heritage. Their observation that the university has not been doing any thing in this direction looked prominent. They observed that the university could think of construc-

tive programmes to build ethical, spiritual and cultural values among the like-minded students by tying up with professional bodies such as Ramakrishna Muth and Vivekananda Kendra. It was felt that even if handful of students could avail of these opportunities, the efforts could be considered well rewarded.

Transparency in Administration

Fifty (50) per cent of the respondents wished to find transparency in the university/college administration. They felt they deserved better cooperation and attention. However, they agreed that the students should also develop a sense of understanding and belongingness.

College Infrastructure

Twenty five (25) per cent of the students felt that their hostels and college premises could be maintained better in terms of greenery, cleanliness and sanitation. Even the common facilities such as bank, post office, playground, common room were well utilised. The students looked forward, but in vain, for an access to Internet facility for academic sustenance and progress. The common room facilities for the day scholars were not thought of by the administration, and this was the common grievance from all the day-scholars.

Ragging

Twenty (20) per cent of the respondents expected their first year to be 'ragging free'. They could have a sigh of relief only when the freshers' day was over.

First year Admissions

Twenty-five (25) per cent of the respondents said that they could not study first year for more than 6 months in view of the late admissions.

Discussion

The views expressed by the respondents about the functioning of the university definitely constitute a case for introspection.

While each of these issues is worth doing independent research by itself, efforts are made, in this paper, to identify the real barriers, as perceived by the students for their delight in the university environment. The study reveals that, any of these not considered in a time frame, on its due merit, will finally lead to frustration among the students.

In fact, any university is like a running stream! The more you utilise its services, the more perfection you attain. The students are, however, to be guided as to how well the university services could

be utilised. Here comes the 'facilitating' role of the university. However, this does not mean the university is absolved of its responsibility.

From the water-tight compartment culture, we should grow as a team to reach new commanding heights of efficiency since the universities thrive on each faculty's best contribution. In essence, we have to switch over from a management paradigm that is based on 'control and compliance' to 'commitment' based paradigm.

Already, in some quarters, the feeling of 'prefer private colleges to the state run colleges' is getting to surface. We cannot modernise overnight, for example, our fifty year-old colleges enough to compete with a recently well started engineering college in view of the financial constraints.

However, no private college can match the university in terms of number of highly qualified staff having doctorates, professors, associate professors, assistant professors and the senior supporting staff. The need of the day is to train the faculty to be more pro-active, committed, motivated and productive (in terms of research, academic and administrative functions) so that they can participate and involve themselves in promoting the image and direction of the university.

The University should be more responsive by customising its courses to suit the perceived demands of the students. In these days of information technology, it is observed that the students spend heavy amounts for learning latest computer software packages outside the university. Can't we add value to our courses by integrating these software packages to our academic curricula?

Retaining the faculty in certain faculties such as computer science and engineering etc has been a perennial problem. Training and retraining the senior teachers from other disciplines in the emerging software technologies can ease the tension.

One of the observations of the researcher is that the students insist on 'spoon-feeding' type of teaching in the classroom. This approach limits the creativity and originality of the students. Only when the students leave the college, they realise the impact of this damage. The 'spoon-feeding' type of teaching and examination pattern should be radically transformed to the 'Partnership in Learning' founded on faculty empowerment and high degree of transparency. The Partnership in Learning does not prescribe to academic staff what they must deliver but, more importantly, provide the framework in which they

can agree to operate.[8] This is what is the secret of success of premier institutes such as IITs and IIMs.

Further, the environment, in which we are placed, significantly matters. the university goals, philosophy, value system, strategies and work culture should be clearly spelled out. Every member of the university, teaching or otherwise, should necessarily be given orientation to these issues since they provide a sense of direction and enhance the degree of commitment among the staff.

Avoidance of responsibility, lack of ambition, and emphasis on security are generally consequences of experience, not inherent human characteristics. It is the responsibility of the team leader to access the causes of mediocre working habits of the members of his/her team by providing the necessary help through counselling and training which will ensure proper conditions for bringing out the best performance on the job.[9]

As Douglas McGregor observes, "if employees are lazy, indifferent, unwilling to take responsibility, intransigent, uncreative, non-cooperative, the causes lie in management's methods of organisation and control."[10]

While the onus of motivating the faculty and building successful teams lies with the university itself, the individual faculty cannot be freed from their accountability and responsibility. Once the human resource of the university is creative, committed, other constraints, including of resources, could be easily tackled.

Several time-tested management concepts such as Total Quality Management, Business Process Re-engineering, academic audit, learning organisations, life-time learning, experiential learning, industry-institute interaction etc, cannot be, any longer, confined to classroom discussion.

Since the universities enjoy perfect autonomy, the real barriers, if at all any, for student delight can be dealt with firmly and innovatively. Academic process could be re-engineered; each department could be moulded into well-knit teams taking teamwork, communication and synergy to new levels.

Some of the strategies to ensure and sustain students' delight in the university environment are :

- to develop proactive approach to individual students;

- to change our attitudes to work by getting more seriousness into our jobs;

- to be 'intrepreneurial' on the work front;

- to evolve a code of conduct for self-appraisal; and

- to continue to associate and involve ourselves both physically and morally in the university administration.

No university has got all the elements of perfection. However, excellent and best practices are a common sight in renowned universities and premier institutes, which are seldom shared with the rest. Even if shared, they are rarely practised for want of commitment and vision.

It is the need of the hour to synthesise these practices and integrate them, based on merit, with our styles of management to enhance brand equity of our courses and attain higher levels of students' delight.

Limitations of the present study

- This study is based on X1, X2, X3 and X4 variables. Certain students give major emphasis to preparation for competitive exams such as Civil Services etc. Attaining higher levels of aggregate percentages, at the graduation, is not their priority nor concern. This study does not reflect the preferences of such students. However, their reflections on the university functioning and environment have been considered.

- The interpretation of the results is based on certain statistical tools and techniques such as mean, standard deviation, correlation etc. Therefore, the limitations of each of these limit the validity of the results of the present study.

- Delight or satisfaction is totally subjective phenomenon. Any attempt to measure it in an objective manner will be subject to certain assumptions and it may not be fool-proof. To be least affected by such a danger, any factor not satisfying the student was given lower weightage i.e., one than the satisfying factor (weightage given for this is two).

- The study leaves it to the student to assess the performance of the university as against his/her own parameters. The study takes it for granted that the students are mature, responsible and practical enough to understand the constraints, including the one of resources of the university. Also, closed or structured questionnaires have their own limitations.

- Information from performance indicators tends to be crude and often requires clarification. Examination pass rates are notoriously difficult to interpret, because much depends on the ability of those who have entered for the examination

and on their expectations. A student expecting to achieve a high grade may see a low grade as a disaster but the same could be regarded as a considerable success by a student expecting to fail. Indicators are best used when large groups are involved, where deviations from the norm can be identified and used in conjunction with other measures of quality. Although they do not show where something is wrong, they do indicate where something could be wrong, and so as a device in monitoring and review, they are useful first line of enquiry.[11]

Particularly those who are, at least, in academic line can assess the pressures the students are subject to while attending the examinations. The pattern of each of the examinations at Plus-Two level, Engineering entrance Test and Graduation is widely different. For example, in Engineering Entrance Test, it is totally multiple choice questions and in Graduate examination, it is conventional and descriptive type. This is another dimension of limitation of the present study.

Suggestions for further research

■ Student delight is a function of many variables. In this paper, an attempt has been made to assess total delight based on 40 factors. Of these, prominent factors can be identified and the weightage of each of these factors can be evolved by research against the background of the best practices from the premier and other prestigious institutions.

■ Other strategies leading to enhancement of student delight include : Flexible curriculum through credit-based framework, Student empowerment, periodic student/staff meetings, reduced class sizes etc. These are some of the examples for customised solutions practised widely and the impact of such academic interventions can be assessed by focused research.

■ The instrument used for measuring student delight has forty issues and each is like a bombshell of its own myriad number of sub-factors. In the light of this, this instrument can be further fine-tuned by further research and administered on a larger scale across different institutions.

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Appendix I

Customer Delight in University Environment

An exploratory Case Study of B.Tech Graduates

The Questionnaire

Dear Student,

Are you delighted to graduate from this University? (Tick your answer here)　　　　　　　　Yes / No

If your answer is yes, Congratulations.

For any reason, if your answer is No, please answer this questionnaire. The following is the list of students' expectations in general. You can *tick* those, which you feel could not be met, for any reason. You are free to share your opinions, observations or feelings, in brief, in this regard.

Expectations about

1. Academic Calendar

2. Examinations Schedule

3. Announcement of Results

4. Issue of provisionals

5. Quality of Teaching

6. Availability of Teachers

7. Commitment of Faculty

8. Commitment of Administrative & Supportive Staff

9. Monitoring of each student's academic performance

10. Campus Recruitment

11. Summer projects/placements

12. Syllabus completion

13. Disturbance to class work, if any

14. Career Counseling

15. Personality Development Programmes

16. Extra-curricular activities

17. Visiting Faculty

18. Awareness of Industry requirements

19. Spiritual and Cultural values

20. Transparency in administration/assessment

21. Laboratories

22. Alumni Association

23. Sanitation and cleanliness

24. Hostel Administration

25. Infrastructure

26. Interaction with professional bodies including R&D institutions

27. Ragging

28. Library facilities

29. Common room facilities for day-scholars

30. Admission to first year

31. Student advisors

32. Counseling for TOEFL/GMAT/GRE/CAT

33. Academic pressure

34. Student representation to University Board of studies for academic decisions

35. Entrepreneurship Development programmes

36. Participation in National level conferences

37. Cultural/Freshers' day celebrations

38. Orgnaising/participating in Debate/Elocution/ Essay writing/Competitions

39. Student Participation in R&D projects of the Faculty

40. Communication skills

Thank you & Best of Luck. ❏

Impact of Academic Staff College's Programmes on Teachers and Students

Rani Dhawan*

During the last few decades the world has witnessed unprecedented explosion in major areas of knowledge. The phenomena of globalization which made its debut in the economic sphere has spread to all walks of life including education. In this new millennium, the society will be more and more knowledge and skill based. The use of information technology will determine the level of quality in all spheres of human activity. The cutting edge of excellence at the national, corporate, group or individual levels will be a large demand for highly competent professionals, who have to be supported by personnel with varying degrees of professionalism. Therefore teachers in the contemporary society need to be thorough professionals, fully equipped with both high academic standards, pedagogical and practical skills and ethical and moral values.

Keeping this in view the Academic Staff Colleges were established in 1987 to equip the teachers with such knowledge and expertise as can make them good and effective teachers in classroom situation and also conscientize them to the problems of polity, economy and environment.

Academic Staff Colleges have been imparting Orientation and Refresher Courses for the last twelve years. It is therefore, in the fitness of things to organise impact studies of the programmes of Academic Staff Colleges. These will enable us to assess the quality of the programmes, to examine their deficiencies whatsoever, and plug the loopholes, if any, to make them more effective and purposeful. Impact study is, in fact, a sort of introspectional exercise both on the part of the organisers and the participants, providing them ample opportunity for self-correction. Multidimensional, as it is, it enables us to maintain the overall quality and effectiveness of these programmes by overseeing defects and short comings from time to time.

Aims of the Study

The aims of the study are to find out the extent of effectiveness of the courses conducted by Academic Staff College, Gorakhpur University in motivating the teacher participants to :

a. understand the significance of education in general and higher education in particular in global and Indian contexts;

b. grasp the linkages between education and economic, socio-cultural development with particular reference to the Indian polity where secularism and egalitarianism are the main pillars of society;

c. understand the role of a college/university teacher in achieving national goal of secular and egalitarian society;

d. acquire and improve basic skills of teaching at the college/university level;

e. be aware of developments in their specific subjects;

f. understand the organisation and management of college/university and to perceive the role of a teacher in the total system; and

g. utilise opportunities of development of personality, initiative and creativity.

Criteria Variables

In order to achieve the aforesaid aims of the study three types of interview schedules — one each for Principals/Heads of Departments, past teacher participants and students were prepared as the main tool of data collections. The interview schedules covered the following variables :

Cognitive : Knowledge of the components of orientation courses and also of the subject or thrust area in which refreshed, awareness of national values and problems, interdisciplinary perspective and scientific way of thinking.

Attitudes : Motivation to learn self-confidence and self-empowerment. Inculcation of professionalism, positive attitude, appreciation and tolerance of others' views.

Skills

1. Instructional aids
2. Effective communication
3. Curriculum development
4. Classroom management

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Behaviour

1. Sense of discipline
2. Punctuality
3. Sense of responsibility
4. Team spirit

Community Service

1. Application of knowledge for solving problems
2. Participation in programmes
3. Different strategies of working with people
4. use of mass media

Methodology

The study had exploratory cum descriptive design. It was conducted at three levels :

1. At the Principals/Heads of Departments' (H.O.Ds') level.
2. At the past participants' level.
3. At the students' level.

The locale of the study was Gorakhpur University and its affiliated colleges spread over the adjoining districts of Deoria, Basti, Sant Kabir Nagar and Siddharthnagar. Twenty-two teaching departments of the University of Gorakhpur and its fifty-six affiliated colleges comprised the universe of the study. Seventeen heads of the departments and thirty-five principals of the affiliated colleges were randomly selected in the first stage of the sampling. Then out of five hundred ninety one teachers who took Orientation and Refresher Courses in various subjects in the year 1995-96, 1996-97 and 1997-98 eighty were chosen for the study by systematic random sampling method. As for students, three hundred and twenty students from teaching departments and affiliated colleges were selected according to the time-table of the teachers for various classes. The sample of three hundred and twenty was drawn by lottery method.

Tool

In order to see the impact of the Orientation and Refresher Courses organized by the Academic Staff College, Gorakhpur University, Gorakhpur, interview schedules were developed as a tool to collect data from the informants. Separate schedules were framed for all the three categories of informants viz. Principals/ H.O.Ds. past participants and students. The sample population of all the three categories were personally approached to fill in the interview schedules.

The Principals/H.O.Ds assessed one hundred eighty four teacher participants on broad spectrum issues covering all the criteria variables as to their role in college/university as teachers — both in the classroom situation and in the wider sphere of the college/university and society. They gave their assessment of the behavioural changes in the teachers who had attended Orientation/Refresher Course and also of the innovations in teaching methods and research etc made by them.

The teacher participants who were chosen as units for the present study did self evaluation/assessment on the interview schedule specially framed for them.

The students also rated their performance and attainments on a five point scale.

The information contained in the interview schedule was sorted out variable-wise. The data were then tabulated separately at all the three levels and analysed with suitable statistical techniques.

Analysis and Conclusion

The data were analysed with reference to the criteria variables.

Table 1.1 Principals'/HODs' Response on the Cognitive level of Teachers (in per cent)

Cognitive Variables	Outstanding	V. Good	Good	Fair	Poor	Total
1 Knowledge of the Components of Orientation Courses and thrust areas of Refresher Courses	6 2	30 8	31 2	31 3	0.5	100
2 Awareness of the national issues	1 8	36 2	41 6	18.8	1.6	100
3 Interdisciplinary perspective	7 6	19 9	27 9	25 2	19.4	100
4 Scientific way of thinking	2 9	25 7	38 7	31 5	1 2	100

To find out the impact of Orientation and Refresher Courses on the knowledge of teacher participants, the Principals/Heads of Departments made their assessment and found (Table 1.1) that 31.2% teachers' knowledge of the components of Orientation Course and the thrust areas of the refresher courses was good and 30.8% teachers' knowledge was very good. While outstanding knowledge in these matters was exhibited by only 6.2% teachers, 31.3% were rated fair and 0.5% poor.

As for the awareness of national issues 1.8% teachers were found to be outstanding, 36.2% very good, 41.6% good, 18.8% fair and 1.6% poor. The Principals/H.O.Ds gave their impression of teachers' tilt in favour of interdisciplinary approach. They said that 7.6% were really outstanding in this regard, 19.9% were very good, 27.9% were good, 25.2% fair and 19.4% poor.

An important aim of Academic Staff College is to foster scientific temper among teachers of the universities and colleges. The Principals/H.O.Ds found that 2.9% teachers were outstanding in their scientific way of thinking, 25.7% were very good, 38.7% were good, 31.5% were fair and 1.2% poor.

The data given in Table 1.1 and their analysis clearly indicates that cognitively the Orientation and Refresher Courses have been very successful. They have made definite impact on the teachers with regard to their knowledge of the courses, awareness of national issues, interdisciplinary approach and scientific temper.

Table 1.2 · Participants' Response on their Cognitive Level (in per cent)

Cognitive Variables	Very much	Much	Less	Not at all	Un-decided	Total
1 Knowledge of the Components of Orientation Courses and thrust areas of Refresher Courses	25 0	46 3	13 8	4 9	10.0	100
2 Awareness of the national issues	29 8	56 3	11 3	1 2	1 4	100
3 Interdisciplinary perspective	30 0	61 3	4 5	2 0	2 2	100
4 Scientific way of thinking	32 5	62 5	1 2	2 5	1 3	100

The participants themselves have also reported that their cognitive level has improved considerably as a result of Orientation/Refresher Course. Table 1.2 indicates that 46.3% participants' knowledge of components of Orientation Courses and thrust areas of Refresher Courses has increased much and 25% have reported that their knowledge has increased very much. Only 13.8% said that there was less improvement and 4.9% said that there was no improvement in their knowledge of the components of Orientation Course and the thrust areas of the Refresher Course.

Regarding awareness of the national issues 56.3% teachers felt that their awareness of the national issues viz. Sensitivity to the hazards of pollution and imbalance of eco-system has increased much and 29.8% realized that it has increased very much, while 11.3% felt that it had increased less, 1.4% could not comment on this issue. As for interdisciplinary perspective variable is concerned 61.3% have reported that it has increased much and only 2% say that it has registered no improvement.

As the Table 1.2 shows the participants have found a remarkable improvement in their scientific way of thinking. While 62.5% teachers expressed that there was much increase in their minds make up in scientific temper, 32.5% reported very much progress in this regard, only 1.2% were of the view that their

scientific way of thinking had increased less and 2.5% reported that it did not increase at all.

Table 1.3 : Students' Response on their Cognitive Level (in per cent)

Cognitive Variables	Very much	Much	Less	Not at all	Un-decided	Total
1. Broadening of knowledge of the subject of course of Study.	21.6	30 8	41 6	3 8	2 2	100
2 Awareness of the national issues	36 1	30 8	25 4	4 6	3 1	100
3. Interdisciplinary perspective	37 7	32.3	23 9	3.8	2.3	100
4 Scientific way of thinking	35 4	42 3	16.9	3 8	1 5	100

The analysis of student's responses also shows that better cognitive level of their teachers has percolated down to them improving their cognitive level of their teachers has percolated down to them improving their cognitive level. As for awareness of the national issues only 4.6% reported that they were not aware of the issues whereas 25.4% were less aware, 30.8% were much aware and 36.1% were very much aware of the national issues. 37.7% students stated that they had been benefited very much by the interdisciplinary approach that their esteemed teachers had inculcated in them. As per Table 1.3, 35.4% students reported that their scientific way of thinking had improved very much. Only 3.8% were of the view that there was no improvement in their scientific way of thinking.

Table 2.1 . Participants'H.O Ds' Response on the Attitudinal Changes among Teachers (in per cent)

Attitudinal Variables	Outstanding	V Good	Good	Fair	Poor	Total
1 Inculcation of Professionalism	2 2	23 9	31 9	27 9	14 1	100
2 Positive attitude towards Orientation and Refresher Course	4 0	19 2	39 9	17 0	19 9	100
3 Motivation to learn self confidence and self empowerment	2 9	32.3	34 3	14 8	15 7	100
4 Appreciation and tolerance of others' views.	7 6	24 6	28 4	23 2	16 2	100

Table 2.1 shows that Principals/H.O.Ds found tremendous change in the attitudes of teachers after their return from Academic Staff College in favour of professionalism. The Principals/H.O.Ds found 23.9% teachers' attitude in this regard very good, 31.9% good, 27.9% fair and only 14.1% poor. They also found 39.9% teachers' attitude towards Orientation and Refresher Course good and 19.2% teachers' attitude very good.

As for motivation to learn self confidence and self empowerment, 32.3% teachers were found to be very good, 34.3% good and 14.8% fairly good. While 2.9% teachers' motivation to learn self confidence and

self empowerment was found outstanding 15.7% teachers were found to be poorly motivated.

With regard to appreciation and tolerance of others' views the Principals/H.O.Ds reported that 24.6% teachers' attitude as very good, 28.4% good and 7.6% teachers' attitude outstanding.

Table 2.2 : Participants' Responses on their Attitudinal Change (in per cent)

Attitudinal Variables	Very much	Much	Less	Not at all	Un-decided	Total
1 Inculcation of Professionalism	25 0	72 5	2 5	—	—	100
2 Positive attitude towards Orientation and Refresher Course.	61 3	34.5	1 2	1 0	2.0	100
3 Motivation to learn self confidence and self empowerment	36 8	60 3	1.3	1 1	0 5	100
4. Appreciation and tolerance of others' views	42.5	45 0	2 5	7 6	2 4	100

Table 2.2 reflects participants' responses regarding attitudinal change for Orientation and Refresher Course. 72.5% participants admitted that much professionalism had been inculcated in them through the Orientation and Refresher Courses and 25% said that they became very much professionalized as a result of these courses. The Table also indicates that 61.3% teachers' attitude was very much on the positive side of these courses and only 1.2% teachers exhibited less positive attitude. 36.8% were of the view that these courses had motivated them to learn self confidence and self empowerment very much. While 60.3% were much motivated, only 1.3% reported less or almost negligible motivation in this regard. Regarding the appreciation and tolerance of others' views 42.5% teachers felt that their attitude had changed very much, 45% felt that it had changed much and 2.5% reported less or almost negligible motivation in this regard. Regarding the appreciation and tolerance of others' views 42.5% teachers felt that their attitude had changed very much, 45% felt the' it had changed much and 2.5% reported less change and 7.6% reported no change at all.

Table 2.3 : Students' Response on their Attitudinal Change (in per cent)

Attitudinal Variables	Very much	Much	Less	Not at all	Un-decided	Total
1. Inculcation of the habit of reading and writing	20.8	48 5	26 9	2 3	1 5	100
2 Positive attitude towards teachers	56.8	23.9	0 6	3.7	4 8	100
3 Motivation to learn self confidence and self empowerment.	40	28 5	19.2	7.7	4 6	100
4 Appreciation and tolerance of others' views.	41.6	28 5	20.4	3.7	5 4	100

The change in students' attitude has also moved in the positive direction. Table 2.3 amply shows it. As per the Table, 56.8% and 23.9% students reported very much and much positive attitude towards their teachers respectively. The Table also shows that 48.5% have cultivated much, the habit of reading and writing, 20.8% are better in the sense that they have cultivated very much this habit and 26.9% have only taken to this habit less and 2.3% have not at all developed the habit of reading and writing. As for motivation to learn self confidence and self empowerment, 28.5% reported much motivation, 40% very much motivation and 19.2% less motivation. Students have also imbibed from their teachers the spirit of tolerance and appreciation of others' views. As per our data 41.6% tolerate and appreciate others' views very much, 28.5% appreciate much and 20.4% appreciate less and 3.7% do not appreciate the views of others.

Table 3.1 · Principals'/H.O.Ds' Responses on the Skills' development among Teachers (in per cent)

Skills	Out-standing	V. Good	Good	Fair	Poor	Total
1 Instructional aids adopted	1 1	26 1	32.5	38.8	1.5	100
2 Effective communication	2.2	29 0	26 5	39.5	2.8	100
3 Classroom Management	2 9	25 7	38.7	31.5	1.2	100
4 Curriculum Development	3.7	18 2	27 9	43.8	6 4	100

As for skills' development among teachers and their use in classroom, the Principals/H.O.Ds' found (Table 3.1) that there was a fair increase in the use of improved instructional aids by 38.8% teachers. Further a good, very good, and outstanding use of instructional aids was reported by 32.5%, 26.1% and 1.1% teachers respectively. The Table also shows that 39.5% teachers' communication skill was rated fair, 26.5% teachers' good, 29% very good and 2.2% outstanding by their respective Principal/H.O.D.

The Principals/H.O.Ds also found a good improvement in 38.7% teacher's classroom management and 25.7% teacher's classroom management skill was found to be very good. Curriculum Development is an essential part of Higher Education. The Principals/H.O.Ds have reported that the Academic Staff College has been inculcating interest in curriculum development among the teachers who have attended Orientation and Refresher Courses. The Principals/H.O.Ds reported that the interest taken by 43.8% teachers in this regard was fair, 27.9% good, 18.2% very good and 3.7% outstanding.

Table 3.2 : Participants' Response on their Skills' Development (in per cent)

	Skills	Very much	Much	Less	Not at all	Un-decided	Total
1.	Instructional aids adopted	40 0	56 3	1.2	1.3	1.2	100
2	Effective communication	22.5	73.8	3.7	—	—	100
3.	Classroom management	13 8	73.8	2 2	8.0	2.2	100
4	Curriculum development	36.3	56.3	3.8	2.2	1 4	100

A perusal of Table 3.2 shows that 56.3% teacher participants have themselves felt that as a result of attending Orientation and Refresher Course there was much increase in the use of instructional aids by them. While 40.0% felt very much increase, only 1.3% realised that there was no improvement in instructional aids adopted by them. 73.8% felt that their communication has become much effective and 22.5% felt that it has become very much effective whereas none of them have realised that there was no improvement in their communication skill. As for classroom management, whereas 73.8% have found much improvement in their skill, only 8% felt that there was no improvement in their skill of management.

Table 3.3 Students' Response on their Skills' Development (in per cent)

	Skills	Very much	Much	Less	Not at all	Un-decided	Total
1	Benefited by the Instructional aids adopted by the teachers	25 4	42.3	23 1	3 8	5 4	100
2	Development of Communication skill	15 4	41 6	36 9	3 8	2 3	100
3	Development of the ability to organise seminars & elocution contests	24 6	23 9	28.5	10 8	12 2	100
4	Inculcation of extension approach	20 8	24 6	27 7	16 9	10 0	100

As per Table 3.3 the students also felt that after their teachers have attended Orientation and Refresher Course there was improvement in their teaching skills. While 42.3% students reported that they were benefited much by the instructional aids adopted by their teachers and 25.4% were benefited very much, 23.1% reported that they were benefited less and only 3.8% were not benefited. As for communication skill, 41.6% students felt that after their teachers attended Orientation and Refresher Course there was much improvement in their own communication skill. 15.4% reported that there was very much improvement and only 3.8% reported no improvement in their communication skill. While 24.6% students said that their ability to organise seminars and elocution contests had developed very much, 28.5% said that their development of this ability was less. As for inculcation of extension approach, 20.8% students reported that their improvement in this skill

was very much 24.6% much and 27.7% said that there was less improvement.

Table 4.1 : Principals'/H.O.Ds' Response on the Behavioural Changes among the Teachers (in per cent)

	Behavioural Variables	Out-standing	V. Good	Good	Fair	Poor	Total
1.	Maintaining classroom discipline	8.8	12.5	42.8	33.8	2 1	100
2	Regularity and punctuality in meeting classes	5.8	32.3	27.3	30.3	4.3	100
3	Sense of responsibility	2 2	18.5	24 6	35 8	18 9	100
4	Amiability and Team spirit	4.7	17 4	37 0	27.0	3.9	100

As mentioned in Table 4.1 we can see that as a result of the Orientation and Refresher Course 8.8% teachers developed outstanding command over classroom discipline, 12.5% maintained very good discipline and 42.8% teachers were found good by their Principals/H.O.Ds as for as maintaining classroom discipline was concerned. It further shows that as a result of Orientation and Refresher Course the regularity and punctuality of 32.3% teahers in meeting their classes were rated very good by their Principal/H.O.D. 37% teachers who had attended Orientation and Refresher Course were rated good in the matter of amiability and team spirit, 17.4% very good in this regard and 4.7% were found outstanding.

Table 4.2 . Participants Responses on their Behavioural Changes (in per cent)

	Behavioural Variables	Very much	Much	Less	Not at all	Un-decided	Total
1	Maintaining classroom discipline	60 0	31 3	5 0	2 2	1 5	100
2	Regularity and punctuality in meeting classes	17 5	78 8	2 5	0 4	0 8	100
3	Sense of responsibility	30 0	68 8	—	0 2	1 0	100
4	Amiability and Team spirit	30 3	58 8	5 5	2 4	2 0	100

Table 4.2 shows that the participants have themselves felt change in their behaviour and over all personality after attending Orientation and Refresher Course. 60% participants said that they were very much successful in maintaining classroom discipline and only 2.2% said they were unable to maintain classroom discipline. While 78.8% reported that they have become much regular and punctual in meeting classes, only 2.5% said that they were less regular and punctual and 0.4% were not at all regular and punctual in meeting classes. As for sense of responsibility is concerned 30.03% reported that they realised their responsibility very much, 68.8% realized it much and only 0.2% did not realise their responsibility at all. Where as 58.8% felt that during the courses their stay in the Academic Staff College has made much addition to their amiability and team spirit, while 5.5% said that these had registered rather less increase in their personality.

Table 4.3 : Students' Responses on their Behavioural Changes (in per cent)

	Behavourable Variables	Very much	Much	Less	Not at all	Un-decided	Total
1.	Sense of discipline	30.0	36.9	20.0	10.8	2.3	100
2	Regularity and punctuality in attending classes	43.8	29.2	17.6	4.8	4.6	100
3	Sense of responsibility	16.1	25.4	33.2	18.4	6.9	100
4	Improvement in the general behaviour towards the fellow students	42.3	28.5	21.6	3.1	4.5	100

Table 5.2 : Participants' Response on their Community Service Extension (in Per cent)

	Community Service Extension	Out-standing	V. Good	Good	Fair	Poor	Total
1	Participation in community service programmes	31.1	66.2	1.3	1.1	0.3	100
2.	Application of knowledge for solving problems	60.0	37.7	1.2	1.1	—	100
3	Different strategies of working with people	22.5	72.5	2.5	1.5	1.0	100
4	Use of Mass Media in social reconstruction	32.5	59.0	3.8	2.5	2.2	100

The students also reported that they felt positive behavioural change in themselves after their interface with teachers who had attended Orientation and Refresher Course. According to Table 4.3, 36.9% students said that their sense of discipline had increased much, and 30% said it increased very much. As for sense of regularity and punctuality in attending classes, 43.8% reported that it had increased very much and in case of 29.2% it increased much. As for the sense of responsibility while 16.1% said it had increased very much, 25.9% felt it increased much and for 33.2% students there was less increase. Only 8.4% reported that their sense of responsibility did not increase at all. Table 4.3 also shows that 42.3% students reported that their general behaviour pattern towards fellow students had improved very much.

Table 5.2 shows that 66.2% teachers said that after attending the course they were able to participate much effectively in community service programmes whereas 31.1% said they took part in such programmes very much effectively. Amongst the teachers interviewed 60% underlined that there was very much improvement in their application of knowledge to solving problems. 37.7% felt much improvement and only 1.1% felt no improvement in this regard. As for use of mass media in social reconstruction is concerned while 59% reported making much use of it, 3.8% made less effort to use mass media in social reconstruction.

Table 5.1 : Principals'/H.O.Ds' Response on the teachers Community Service Extension (in per cent)

	Community Service Extension	Out-standing	V. Good	Good	Fair	Poor	Total
1	Participation in community service programmes	6.2	39.1	25.0	8.7	21.0	100
2	Application of knowledge for solving problems	5.5	23.6	35.9	16.9	18.1	100
3	Different strategies of working with people	1.5	19.6	27.5	31.9	19.5	100
4	Use of Mass Media in social reconstruction	3.7	35.2	29.1	12.6	19.4	100

Table 5.3 : Students' Responses on their Community Service Extension (in per cent)

	Community Service Extension	Very much	Much	Less	Not at all	Un-decided	Total
1	Participation in community service programmes	6.9	40.8	40.8	10.0	1.5	100
2	Application of knowledge for solving problems	40.8	37.7	16.9	2.3	2.3	100
3	Different strategies of working with people	22.4	44.6	17.6	6.9	8.5	100
4	Use of Mass Media in social reconstruction	26.9	36.1	19.2	8.6	9.2	100

Table 5.1 shows that the Principals/H.O.Ds reported tht 39.1% and 25% teachers' participation in community service programme was very good and good respectively. As for application of knowledge to solving problems 5.5% were found to be outstanding, 23.6% very good, 35.9% good, 16.9% fair and 18.1% poor. The Principals/H.O.Ds gave their impression about the different strategies which their teachers applied while working with people. They said that 1.5% were really outstanding in this regard, 19.6 were very good, 27.5% good, 31.9% fair and 19.5% poor.

Table 5.3 reveals that as a result of their teachers attending Orientation and Refresher Courses 6.9% students reported that their participation in community service programmes was very much and 40.8% said that it was much. As for application of knowledge for solving social problems 40.8% students felt that they used them very much. The Table also shows that as a result of their teachers attending the courses 44.6% students reported that they made much use of the new strategies for solving social problems. However 8.5% could not comment on this point and 17.6% reported that they made less use of new strategies for solving the problems of people. As for the use of mass media the response was not very encouraging. Only 36.1% students said that they made much use of mass media in tackling the problems of society, whereas 19.2% reported less use, 8.6% no use and 9.2% were undecided.

Findings

From the foregoing analysis, the following impact of the courses conducted by Academic Staff College, Gorakhpur University becomes clear.

1. There is considerable Cognitive improvement among teachers. Their knowledge of the components of Orientatin Course and thrust areas of Refresher Courses has improved. They have also developed scientific thinking. Their approach is increasingly becoming interdisciplinary.

2. There is marked attitudinal change among teachers. They are developing self-confidence and self-empowerment. The courses have put them high on professionalism. They are more savvy and accommodating.

3. They are using instructional aids in teaching, infrastructural limitations notwithstanding. Their communication skill has also improved. There is also an improvement in their classroom management and curriculum designing.

4. Behavioural changes are clearly discernible among teachers. They exhibit a sense of discipline, they are punctual in their classes and make their students also punctual. They no longer shirk responsibilities. They are ready to shoulder responsibility and work in team spirit. Students have also been found to be imbibing these spirits.

5. Promotion of sensitivity to surroundings is an important objective of Academic Staff Colleges. Teachers are sensitive to the problems of society and apply their knowledge and expertise towards solving them. Students were also aware of the problems of their surroundings. They also apply their knowledge to sorting out the problems of their vicinity. They are no longer cut off from people but work with them.

The students, however, were not very much enthusiastic about using mass media in tackling social problems of their areas.

Conclusion

The Orientation and Refresher Courses conducted by the Academic Staff College, Gorakhpur University have resulted in positive changes among teachers and students, at cognitive and attitudinal levels. The courses have sensitised teachers and students to the problems of society and made them effective participants in classroom situations.

Implication

The important implication for the practitioners and planners is that they should pay more attention to the academic staff orientation programmes and strengthen them structurally and infrastructure wise. The programme is moving in the direction of achieving the aims and objectives of the Academic Staff Colleges. Though on the basis of this micro-study no theory can be built yet as an empirical study the findings can be considered as a small contribution towards establishing the positive effect of the orientation programmes, in inducing positive and significant attitudes among the university and college teachers.

Suggestions for improvement

1. The academic staff orientation programmes should not be mistaken for teachers training programme. The latter is formulae bound, strait-jacketed and determinate while the former is broad based flexible and realistic. It is, therefore, imperative that Academic Staff Colleges design their programmes freely and on the basis of micro-analysis and macro understanding.

2. Greater emphasis should be given on interactional methods, rather than instructional methods.

3. Audio-visual-aids should be used for making the programme rich and interesting.

4. Courses should be revised from time to time so as to make them realistic rather than doctrinaire.

5. Quality perspective and social concerns need to be emphasized.

6. Academic Staff Colleges should be given academic, administrative and financial autonomy so as to save them from the ills of the host university system.

7. Steps should be taken to enrich the Academic Staff College libraries and strengthen reading room facilities.

8. Hostel facilities should be provided for the participants.

9. The programme of Orientation and Refresher Courses should be planned well in advance and made available to the teacher participants on the first day of the course.

10. Cyclostyled course material should invariably be provided to the teacher participants. Facility of obtaining Xerox copies of important chapters from rare books at subsidized rates should be made available to the participants.

11. Assignments, feed back, monitoring and evaluation are necessary to make the programme effective and rewarding. ❏

The Essence of Teaching

Dr. Rajammal P. Devadas, Chancellor, Avinashilingam Institute for Home Science & Higher Education for Women, Coimbatore delivered the Convocation Address at the Annual Convocation of the Govt. College of Education for Women, Coimbatore. She said, "The essence of teaching lies in creating an insatiable love for knowledge in the learners, a love that will not die when they leave the educational institution, but will continue to influence them till the end of their lives. The real success of a teacher lies in helping children to grow into worthy human beings with courage to face the problems in life, with an inner strength that is the result of good character and community living." Excepts

The destiny of India is shaped in her classrooms — Education Commission, 1996.

The future of India, at any point of time, rests on the foundation being laid in the classrooms. Children of today are the leaders of tomorrow. Any sensible society will therefore invest in education a good proportion of its resources, knowing that the investment made in education will result in Human Resource Development, which is the basis for all other developments. If the role of education in the development of the nation is so important, the role of the teachers in the preparation of the future builders of the nation, is far more important. Teachers are the guides and philosophers who shoulder the responsibility of directing the children and youth of the nation in the path of progress, through meaningful education.

We have just stepped into the threshold of the new century — and the new millennium. As teachers in the twenty first century, you have to face the great challenge of adapting education to the changing needs of the ever changing modern society. With the scientific and technological advancements taking place in leaps and bounds, change is inevitable in all walks of life. With the advent of modern techniques of communication such as computer network, internet, television and cell phone, acquisition and processing of information have acquired new, stunning and varied dimensions. The *Gurus* of yesteryears were solely responsible for passing on information from generation to generation, along with their own contribution to enrich knowledge. However, in today's competitive world, varied sources of information are vying with the teacher to educate the pupils and the public on a wide spectrum of knowledge areas. The teacher needs to compete with the mass communication media, and establish his/her right as the most important and effective educator. For this purpose he/she has to excel in the art of teaching and prove to the world that nothing can replace the teacher and nothing can substitute the face to face interaction in the classroom. This is a big challenge for the teaching community to establish their role in leading the nation through the twenty first century.

Now we are in the cyberage when the explosion of knowledge and transmission of information is so fast and artificial intelligence is being applied to solve problems in every conceivable department of life. We have to reconsider the conventional assumption regarding knowledge, curricula, methods of teaching and evaluation and take immediate steps to remove the inadequacies in the light of the demands of the cyberage and make the education system more relevant and useful. As the Programme of Action of the New Education Policy (1986) states, a system of education cannot rise above the level of its teachers. Hence teachers should rise to the occasion and develop gradual cyberage compliance by constant learning and make efforts to apply information technology for the improvement of curriculum, delivery of teaching and building up of a supportive research and for strengthening educational institution-community links.

Great social changes are imminent in the coming years. Improved economic conditions, changes in life styles due to the availability and accessibility of more comforts and luxuries and greater opportunities for leisure time activities, are bound to bring in unprecedented social changes. In the absence of protective and preventive interventions, there is no guarantee that such changes will be beneficial to humanity. Good leadership is always essential for progress, but more so when a society finds itself in a stage of transition. India is in a transitional stage. It is still a developing country, in spite of the glorious past, which is our pride, since our civilization was far ahead of all other civilizations. After a dark period, comprising a few centuries, the nation is now marching forward emitting signs of her potential to be the number one country in the community of nations. This will be achieved only if the youth of today receive due encouragement and inspiration from the elders. Who else can inspire them, if not the teachers?

Teachers have a big role to play in shaping the future of the nation through your approach to, and performance in teaching. Education is not merely passing on of informa-

tion — not simply showing your expertise in subject matter knowledge and pedagogy. The essence of teaching lies in creating an insatiable love for knowledge in the learners, a love that will not die when they leave the educational institution, but will continue to influence them till the end of their lives. The real success of a teacher lies in helping children to grow into worthy human beings with courage to face the problems in life, with an inner strength that is the result of good character and community living.

Education should result in the all-round development of the individuals. The teachers of today have to face several challenges in providing the right kind of education to the children, which will help in their integrated development — the development of body, mind and spirit.

When one considers the physical development of children, the situation is alarmingly disheartening. Surveys conducted by the National Institute of Nutrition, the Avinashilingam Institution and other agencies during the past three decades indicate that the energy intake of children in the low income groups in the rural and urban areas is inadequate — 30-40 per cent below the recommended level. Anaemia is highly prevalent, 40-50 per cent of children in the age group 0-15 years are anaemic. A majority of children born in the low income families in India are very much shorter and lighter than the children born in the well to do families. A little over half of them have body weights below 75 per cent of the standard weight for the age. The food habits of youth and children are so highly influenced by the mushrooming fast-food joints in the cities and villages, and the boom in the field of advertisement through television, that children shun the simple home-made balanced diets and develop a craze for coloured drinks with empty calories and

flashy food that is hard on the stomach. To add to this, children are stuffed with more medicines than they need and ruin their natural immunity to common ailments. The greatest challenge before the teachers with regard to the physical development of childern is how to wean the children away from faulty food habits and how to strike a balance between enough medical care and undue importance to and over-dependence on modern medication. The teacher is in a position to improve the situation by carefully inter weaving nutrition education and health care in the classroom.

Physical activity and play contribute much towards physical well-being. If the TV and internet are making children spend long spells of time sitting in front of them, the teachers also are found to give too much of written work — copying work to young children that they find no time to play in the open grounds. Teachers should encourage children to play outdoor games and keep their bodies fit. They should also teach them to do their work by themselves and engage in activities like cleaning and gardening that give exercise to the physique. Only a healthy body can contain a healthy mind.

Teachers can never cease to be learners. A great deal of research in the field of education is taking place and concrete suggestions are being made as to what is to be done to shift the emphasis from rote memory to understanding and application. Many reforms in the process of teaching and evaluation have been suggested. Teachers should give more concerted attention to these matters and experiment wholeheartedly with new methods of teaching/learning and improved techniques of assessment for a comprehensive evaluation of various faculties of students, like logical thinking, analytical approach and creativity, in a manner that is attrac-

tive and acceptable to modern youth.

If the development of children is to be holistic and not lop-sided, their social and emotional needs must be taken care of. Children need love and affection. Children need a feeling of security — they need freedom to do what they are capable of. Healthy emotional well-being comes not from physical comforts but from the give and take relationships with the near and dear ones. The willingness to share with others begins at home and grows gradually to engulf friends, community, state and the world. This development from social consciousness through social competence is anything but smooth. The social ostracisms practised in the society, the religious fanaticism, corruption in politics, public life and bureaucracy, the innumerable superstitions and rituals are all impediments to social development. To free youth from these oppressing societal conditions and enable them to grow into socially responsible and competent citizens who will uphold the democratic principles stated in the preamble of our Constitution, fresh strategies and firm initiative are called for. Teachers have a major share in this task. Teachers need to stop being dogmatic; instead of stuffing the minds of the children with age-old ideas, encourage them to think on their own and evolve a philosophy of life for themselves. Instead of accepting anything foreign and modern as good and useful, teach them to make wise choices.

In order to guard children from the ill-effects of mass media, especially cinema, wherin sex and violence find predominant portrayal, value education is needed. Value education should be carefully incorporated in the curriculum. Personal, social and spiritual values like honesty, tolerance, non-violence, courage, compassion, purity of thought and deed, love for country, duty

consciousness, dignity of labour and environmental awareness are to be inculcated in the minds of children. This kind of education is more important than mere acquisition of subject knowledge.

The main aim of education is to shape the character of youth and make them persons of high morality and worthy citizens of the nation. Values have to be inculcated by providing activities and experiences inside and outside the educational institution that promote values. Values are related to both cognitive and affective domains and hence in addition to giving a knowledge of values, integration of value system into the personality of the youth leading to character formation is essential. This can be done by creating an institutional climate wherein the student-teacher relationship is friendly and based on faith. To achieve this the teachers should strive to have a clean image among the students by being honest, sincere and punctual. By following professional ethics and by devoting more time for discussion with students, teachers should present themselves as ideals.

Today teachers do not command respect from students as in the past although their emoluments have been in creased considerably. There was a time when teachers were held in great esteem. It is wrong to expect that the status of the teacher would be raised by raising the income and making them economically self sufficient. These great teachers of past, who have found a place in the history of the nation and the world, were noble human beings. They cared least for money and all that money could buy. They lived a life of simplicity and dedication. There is a paucity of leadership on the political and other fronts and to protect the nation from the ill-effects of communalism, casteism, gender bias and corruption. Proper education of the masses is the only solution to these problems. The objectives of education formulated in black and white in the National Policy on Education are laudable and of a high standard. But who is responsible for translating the objectives into action and help in bringing about a social revolution? Teachers. Teachers have to incorporate these ideals in the curriculum through a future-oriented programme and innovative methods of teaching, eradicate the social evils, and inculcate faith in goodness and honesty, fortitude to oppose injustice, tolerance for all religions, equality before law and dignity of labour in the minds of the youth. The best way to impart values is exemplary behaviour on the part of teachers. ❏

M.S. SWAMINATHAN RESEARCH FOUNDATION

MSSRF invites applications from outstanding and active scholars for the position of **Shri B R Barwale Chair in Biodiversity**

The Chair is responsible for programmes in agro-biodiversity management with special reference to the revitalisation of the *in situ* and on-farm genetic resource conservation traditions of rural and tribal families. The Chair will also head the MSSRF Technical Resource Centre for the Implementation of the equity provisions of the Convention on Biological Diversity and of the provisions for Farmers' Rights in the Bill for Plant Variety Protection and Farmers' Rights.

The applicants should, in addition to a Doctoral Degree or equivalent professional qualification in Plant Genetics/Ecology/Agriculture/Botany, have at least ten years of work experience in an academic and/or activist setting and a record of quality publications. Three-year renewable contract on negotiable terms. Women are encouraged to apply. Age preferably below 45 years.

Interested candidates may apply with complete CV (including copies of important publications, and names, addresses and contact telephone numbers of three referees) to the *Chief Manager, MSSRF, Third Cross Road, Taramani Institutional Area, Chennai 600 113, India* by **Monday the 15th MAY 2000.**

Dr B.V. Rao Chair for Food Security

Applications are invited for the position of Dr. B.V. Rao Chair for Food Security. The primary responsibility of the Chair will be to lead MSSRF's programme in fostering a **Panchayati Raj** led movement for a **Hunger–free India**, with particular emphasis on economic access to food and on ending chronic under-and-malnutrition and maternal and foetal malnutrition.

Applicants should have either a Ph.D. or an appropriate Post-graduate Degree in Social Sciences, with about 10 years work experience related to issues of food and livelihood security. Experience of working with village communities/local bodies/Panchayat Raj institutions will be an advantage.

Age below 50 will be preferred. Terms negotiable. Women are encouraged to apply.

Those interested candidates may send their CV to the *Chief Manager, MSSRF, Third Cross Road, Taramani Institutional Area, Chennai 600 113, India* by **Monday the 15th MAY 2000.**

Coordinator for National Network on Biovillages and Community Banking

Applications are invited for the position of **Coordinator, National Network on Biovillages and Community Banking**. The objective of the network is to enlarge opportunities for sustainable rural livelihoods based on micro-level planning, micro-enterprises and micro-credit, with emphasis on an integrated approach to the conservation/enhancement of natural resources.

Applicants should, in addition to a Ph.D. or appropriate Post-graduate Degree in Management/Economics/Banking/ or other Social or Biological Sciences, have experience in organizing Self-Help Groups or other job-led growth enterprises, and orientation to technology development and dissemination. Age below 45 preferred. Women are encouraged to apply. Terms negotiable.

Those interested may send their CV to the *Chief Manager, MSSRF, Third Cross Road, Taramani Institutional Area, Chennai 600 113, India* by **Monday the 15th MAY 2000.**

Autonomous Colleges in India

With the number of self-financing colleges on the rise, autonomous colleges have become a must, said Dr. Pon Kothandaraman, Vice Chancellor, University of Madras.

Speaking at a function to release the book 'Autonomous Colleges in India — history, performance and future', organised by All India Association for Christian Higher Education (AIACHE) and Stella Maris College, Chennai, Prof. Kothandaraman, while admitting that autonomy was necessary, said that it does not mean isolation from social needs. Neither does it mean homogenity.

In the name of globalisation, homogenity should not be sacrificed altogether. 'Develop homogenity and unless we do that, we will not be able to perform in the new millennium", he said.

Quoting from Malcom Adhiseshaiah's statement in the book, he also pointed out that the educationists had stressed the need for education in the mother tongue. Dr. D. Victor, Director of Collegiate Education, said that since 1968, when the concept of autonomy was introduced, 500 colleges were expected to gain autonomy by the end of the Sixth Plan. 'We are into the Ninth Plan but only 127 colleges in the country have gained autonomy', he added.

Further, he said that many colleges applying for autonomy do not have standing autonomous committee and do not apply through the university. It is for the university to study the viability and only then the colleges can ap-

ply for autonomy, he noted. Out of 127 autonomous colleges all over the country, 49 were in Tamil Nadu alone.

Of the 49 autonomous colleges, 13 were affiliated to Madras University, 11 to Madurai Kamaraj, 10 to Bharathiayar, nine to Bharathidasan University and the rest were shared by Manonmaniam Sundaranar and Periyar universities.

Pointing out that both the National Assessment and Accreditation Council (NAAC) and the concept of autonomy were introduced with the idea of social upliftment, he said NAAC had received the best thrust from colleges in Tamil Nadu. Forty-one out of the 85 accredited colleges across the country were in Tamil Nadu, he said.

Mr. N. Ram, Editor, *Frontline*, who released the book, said the teachers had been rightly opposing the move by the government to devalue higher education in the national scheme of things in recent times. In view of liberalisation and globalisation, the State was attempting to withdraw necessary support to educational institutions, at a stage when it is about to take off.

In the middle and high school education, India has an enviable position among the developing nations. Moreover, 85 per cent students enrolment had been in affiliated colleges. So the system of affiliation should also be looked at sympathetically, he said.

The spread of autonomy is also uneven across the country. Even educationally strong States like Maharashtra, have not

matched Tamil Nadu's achievements.

Further, the apprehension of teachers that an autocratic setup would be installed under autonomy also needs to be considered, he said.

The book, he said, will be extremely valuable as a resource book.

Prof. M.A. Thangaraj, former Principal, American College, Madurai, said autonomy should pave the way for innovative courses. This in turn should act as an inspiration for other colleges to apply for autonomy. He also called upon faculties to come together and plan for innovation in education.

Mr. S. Swaminathan, Business Editor, *The Hindu*, said autonomy is a natural condition for colleges and anything other than that is unnatural. Affiliation system is an anachronism while autonomy instills academic vision and leadership and also tries for a community-oriented vision.

Dr. Xavier Alphonse, Director, Madras Centre for Research and Development of Community Colleges, in his address said that the book aimed at providing an indepth understanding of the concept of autonomy and to encourage colleges to take up a next step of deemed status.

Prince of Arcot, Mr. Mohammed Abdul Ali, gave away the 'Pioneer award' to Prof. M.A. Thangaraj and the national award for educational journalism to *The Hindu*. The awards are instituted by AIACHE.

Diploma in VLSI Design

Centre for Development of Advanced Computing (C-DAC), a scientific society under the Ministry of Information Technology, Government of India was set up in March 1988 as India's national initiative for the design, development and delivery of indigenous high performance computers.

In the decade since its inception, C-DAC has developed a range of high performance parallel computing products, popularly known as the PARAM series of computers.

C-DAC's Language Technology Mission complements its high-performance computing and communications initiative to create a framework for the co-existence of all the living languages of the world, with diverse scripts, on standard computers. C-DAC has innovated its trail-blazing Graphics and Intelligence based Script Technology (GIST) to achieve this goal. The GIST technology is now extended to include multilingual and multimedia computing solutions addressing a wide range of applications such as Publishing & Printing, Word-processing, Accounting, Spreadsheets, Graphics & Imaging, Electronic Mail, and Video & television.

A range of innovative video products have also been created for the Video and Broadcasting industry such as MOVE Video Character Generator, LIPS Multilingual Sub-titling System, Multilingual Teleprompters, Chameleon Video CD Creator Station, Butterfly Dubbing Station, MPEGI & II Encoder and Decoder. Total solutions have also been implemented for Citizen ID Card preparation, Land Records computerisation and Newsroom automation.

It has also developed a range of Hindi self learning software packages with the sponsorship of the Department of Official Language. Under this LILA Prabodh is already being marketed. A machine aided translation system from English to Hindi, MANTRA, has also been developed for automatic translation of Gazette notifications.

C-DAC undertakes large networking projects covering latest designs, technologies and standards. Some of the recent networking projects in the field of education are :

- *Punjab University* — a 1000 node scalable system using the ATM backbone to connect different departments.

- *Mysore University* — the first phase of the ATM based campus-wide networking was installed successfully with an internet facility in the Library for students and faculty.

- *Vishva Bharati, Shantiniketan* — a very large (over 16 km) fibre optic network linking various departments across Shantiniketan and Shriniketan.

Leveraging upon its expertise in HPCC, it has developed advanced computing solutions for Education & Research like Campus-wide Networking, Single Window System for University Administration, Laboratory automation.

It has established its Advanced Computing School (ACTS) to address the growing demand for trained manpower in this extremely fast moving sector. Through the ACTS, C-DAC offers a variety of course options covering most important segments of IT. These include — VLSI (Very Large Scale Integration) Design, Ditigal Multimedia, and Computer Software Technologies. C-DAC's nine different courses are now offered through its own centres at Pune, Delhi, Bangalore and Hyderabad, and as many as fifty franchised centres around the country. It has also embarked on a programme of imparting IT education to Government employees at various levels. The courses offered by ACTS are as follows :

- Diploma in Advanced Computing (DAC)
- Diploma in Business Computing (DBC)
- Co-Curricular Diploma in Advanced Computing (Co-DAC)
- Diploma in Information Technology (DIT)
- Advanced Diploma in Information Technology (ADIT)
- Diploma in VLSI Design (DVLSI)
- Diploma in Advanced Computer Arts (DACA)
- Certificate in Computer Arts (CCA)
- Certificate in Low Cost Multimedia Content Creation (CLCMCC)

Under the guidance of the Centre Head Dr. N. Sarath Chandra Babu, C-DAC, Hyderabad branch is commencing the Diploma course in VLSI (Very Large Scale Integration) Design, in its Advanced Computing Training School.

The Diploma in VLSI Design is a course intended to initiate present and future electronic designers into the vast field of Electronic Design Automation. The contents of the course have been designed keeping in view the emerging trends in the field of

VLSI design technology, and the requirements for skilled manpower that would be needed by the electronics industry.

Course Contents :

— Digital Design Funda mentals
— Advanced Digital Design
— CMOS VLSI Design
— Synthesis and Simulation
— Designing with VHDL/ Verilog
— Testing Techniques
— FPGAs and ASICs
— Complete Design of a Representative Circuit in VHDL

Course Structure

The Diploma in VLSI Design is a 18 weeks full time course consisting of seven modules. There will be an evaluation at the end of each module.

Eligibility

● Experienced Electronics designers, developers, system integrators from electronics industry and R&D organisations.

● Electronics/Electrical/ E&TC/Instrumentation/ Computer Engineers.

● M.Sc. Electronics/Physics graduates.

● Students appearing for final year examination of any of the above courses may also apply.

All applicants should possess a working knowledge of computing in DOS/Unix environments.

Selection

Students will be admitted to the Diploma in VLSI Design on the basis of their performance in an objective-type Entrance Test on digital hardware design fundamentals and general aptitude, which will be followed by an interview.

Fees

The fees for the course are Rs. 35,000/- (Rs. Thirty Five Thousand only) per person, to be paid in full at the time of confirmation of admission. The fees are non-refundable and should be paid by D.D. drawn in favour of C-DAC and payable at Hyderabad. A registration fee of Rs. 300/- should be paid while collecting the application form.

Schedule :

Last date for submitting application : May 29, 2000

Date and time of Entrance Test : June 19, 2000 to July 01, 2000

Last date for payment of fees : August 01, 2000

Date of commencement of the course : August 14, 2000

Date of conclusion of the course : December 23, 2000

Special Features :

— Access to State-of-the-Art computing facilities equipped with latest VLSI design tools

— Unique curriculum

— Resourceful faculty from C-DAC and Industry

— Extensive hands-on sessions

— Well equipped library

— Creative work environment

For further details contact Centre Head C-DAC, 2nd Floor, Delta Chambers, Lane Adj. Margadarsi Chit Fund, Ameerpet, Hyderabad-500 016, Tel : 040-3301331/32 Fax : +91 40 3301531, Email: acts@cdach.ernet.in URL: http://acts.cdac.org.in

Integrated B.Sc., M.Sc. Courses

Bangalore University (BU) plans to start a five-year integrated programme — B.Sc. (Hons) and M.Sc. (Hons) — in five disciplines in collaboration with central research and development institutes from the next academic year.

According to Bangalore University Vice-Chancellor, Dr. K. Siddappa, the five disciplines for which pre-university would be an eligibility criteria will include condensed matter physics, biotechnology, information technology, chemistry and mathematics.

While the programmes in physics, biotechnology and information technology will be taken in the first phase, chemistry and mathematics will be taken up in the second phase.

Discussions are on with Department of Atomic Energy, Department of Space, Defence Research and Development Organisation and Department of Science and Technology to fund the programmes. The university will also participate in teaching and in placement services.

Dr. Siddappa said that admissions to the courses will be

through a national-level entrance test. A final decision regarding the curricula, fee structure and student strength will be taken up in the month of May this year after a meeting with officials from the research institutes, he said.

He said all the courses will be need-based and will meet the requirements of research institutes facing severe manpower shortage.

Dr. Siddappa announced that the university also planned to establish five information kiosks — three in Jnana Bharati campus, one in Central College and one in UVCE. These kiosks will provide information about various courses offered by the university. Information regarding higher studies and job opportunities will also be provided at the kiosks. The university also plans to provide internet and online library facilities to all its departments. Dr. Siddappa said that the university will soon launch its own website.

It also envisages the involvement of NRIs and alumni of the UVCE to provide infrastructure development and establishment of a multi-media centre at the college.

The Vice-chancellor said that the university was developing a linkage between varsity — R&D institutes and industries. As a prelude, a three-day workshop will be organised in the month of May this year.

Rs. 1.25 Cr. for GND Varsity

The Union Minister for Sports and Youth Affairs, Mr. Sukhdev Singh Dhindsa, is reported to have announced a grant of Rs. 1.25 crore for the replacement of the astroturf and for the construction of indoor gymnasium in Guru Nanak Dev University sports complex. He made the announcement while presiding over the 30th annual sports prize distribution function of the University in Amritsar.

Mr. Dhindsa said a meeting of all the sports federations has been called at Delhi in April for indepth deliberations over various aspects of sports and to find ways and means to elevate the standards of sports in the country. A new sports policy for the country would soon be formulated which would be presented in the Parliament in this session.

He appealed to all veteran sportsmen and persons connected with the administration to send their views and suggestions to improve the performance of the country's sports.

He congratulated the university for winning the coveted Maulana Abul Kalam Azad Trophy for the 14th time. Earlier, the Vice Chancellor, Dr. Harbhajan Singh Soch, demanded performance based grants to universities.

Dr. Kanwaljit Singh, Director Sports, Guru Nanak Dev University has been nominated on the Board of Directors of Laxmi Bai Institute of Physical Education, Gwalior.

News from Agricultural Universities

Group Insurance of Students

Ch. Charan Singh Haryana Agriculture University (CCSHAU), Hisar has decided to have group insurance of its students against accidents and other hazards.

Dr. Vinay Kumar, Vice Chancellor of the University said, there were around 2200 students in the university and every student on the rolls would be insured against personal accidents leading to casualty, permanent or partial disability for an amount of Rs. 1 lakh.

In addition, it has also been decided that under the new "Amritya shiksha yojana" policy for students of the group insurance scheme, the parents of every student would be insured against personal accidents for an amount of Rs. 2 lakh.

In the case of a casualty of the parents or the students the insurance company shall pay the total expenditure involved in the education of the student at the university, including boarding, lodging, tuition fee, travelling, etc. About Rs. 15 per month will be charged from students for this purpose. This would ensure an uninterrupted education to the student, he said.

The scheme would be implemented from the academic year 2000-2001. The National Insurance Company, a subsidiary of the General Insurance Corporation of India, is providing 35 to 50 per cent discount against group insurance of students for the purpose and Rs. 15 per month per student would be charged extra for both policies after the discount.

Workshop on Kharif Crops

Mr. Vinay Kumar, Vice-Chancellor, CCS Haryana Agricultural University, Hisar expressed his concern over the quick rise in paddy cultivation in the state. He said, the farmers unaware of the consequences have started paddy cultivation even in areas which have either brackish ground water or the water table at the critical level. He said if timely steps to this

practice were not initiated more lands will become unproductive due to water-logging and salinity. Mr. Kumar was addressing the farm scientists and officers of the State Department of Agriculture at a workshop on Kharif Crops organised at the university recently.

He drew attention of the farm experts on the increasing expenditure on agriculture. He said cotton and paddy were the major kharif crops on which 80 per cent of the chemicals and insecticides were being used to contain insect-pests and the diseases. He urged the scientists to develop more of disease and pest resistant varieties apart from popularising among the farmers integrated nutrients and pests management practices. He called the State Agriculture Department officials to curb the spurious fertilizers and insecticides being sold in the market.

The Vice Chancellor disclosed that the varsity scientists had evolved some varieties and hybrids of cotton which besides resistant to the diseases and pests, had higher yield potential. He asked them to develop similar hybrids of paddy as well.

Mr. Naseem Ahmad, Commissioner and Secretary, Agriculture, Haryana also described the reckless paddy cultivation as suicidal. He said it was not in the interest of the farmers and they should immediately shift to alternative summer crops.

Dr. L.S. Suhag, Director Extension Education suggested that cotton cultivation should be promoted in Rewari and Mahendergarh districts while more area be brought under sugarcane in Sirsa district. Dr. B.L. Jalali, Director of Research, said improved varieties of paddy, cotton, bajra and maize developed

recently had been released for general cultivation in the state.

Dr. Jalali said that the new paddy variety HKR-46 had given an average yield of 62 q per ha but possessed the potential of 90 q per ha. Based on the performance, the desi cotton hybrid AAH-1 had been recommended for release at the national level. Its mean seed cotton yield was 2506 kg per ha.

Likewise, desi cotton variety HD 123 yielded 2291 Kg of seed cotton and was suitable for cotton-wheat and cotton-soya rotation. He said attempts were being made to develop still early maturing and productive varieties of pigeonpea.

Mr. Sarban Singh, Director of Agriculture, Haryana stressed the need to grow area specific and need based crops.

News from UGC

Countrywide Classroom Programme

Between 17th April to 23rd April, 2000 the following schedule of telecast on higher education through INSAT-1D under the auspices of the University Grants Commission will be observed. The programmes are telecast on the Doordarshan's National Network from 9.30 to 10.00 a.m. every day except on Saturdays & Sundays. These programmes are also telecast on Doordarshan's National Network from 6.00 to 6.30 a.m. on all days of the week.

17.4.2000
"The Saga of Life-III"
"Literature in Society Rennaisance : Myth & Reality-1"
"Jacques Monsters : Artificial Hand"

18.4.2000
"Question Time-124"
"Ecological Modelling"
"Literature in Society Rennaisance : View of Man-II"
"Food Chain"

19.4.2000
"Green Revolution : Dr. M.S.

Swaminathan — A Global Scientist"
"Eco-friendly Farming"
"Literature in Society Rennaisance : View of Women-III"
"Touch of Genius"

20.4.2000
"हरिशंकर परसाई : व्यक्तित्व एवं कृतित्व"
"Rain Water in Summer"
"Literature in Society Rennaisance : Literature in Politics-IV"
"Vasundhara : Birds of Wet Land"

21.4.2000
"Keithel (Women's Market)"
"Integrated Child Development Services-II"
"Literature in Society Rennaisance : A Conversation-V"
"Dragons of the North"

22.4.2000
"Awadh : The Legacy-Imambara-I"
"इन्दौर का रजवाड़ा"

23.4.2000
"मांडु — जहां मोती पिरोती है रात"

Calendar of Events

Proposed Dates of the Event	Title	Objective	Name of the Organising Department	Name of the Organising Secretary/ Officer to be contacted
May 26-27 2000	National Seminar on Organisation of Libraries and Information Centres in the 21st Century	To help the L & IS profession adapt itself to the new environment created by IT	CHMK Library and Deptt. of Library & Inf Sc., University of Calicut	Prof. (Dr) M. Bavakutty CHMK Library, University of Calicut, Kerala-673 635
May 28-30 2000	Association for Educational Research Annual Conference	Theme: Research Issues in Curriculum	PVDT College of Education for Women, (SNDT Women's University, Mumbai)	Dr. AG Bhalwankar Principal, PVDT College of Education for Women, Church Gate Mumbai-400 020
Dec 13-15 2000	Indicators of Quality Edn. at the Elementary Stage	To bring qualitative improvement in school education	NCERT, New Delhi	Prof Ved Prakash DPEPCRG, NCERT New Delhi-110 016 Fax. 91-11-6868419 E-mail-dirc@guasd101 vsnl.net in
Dec 28-30 2000	Teacher Education and Information Technology	To discuss the implications of IT in Teacher Education in all its stages and dimensions	IASE, M.J.P Rohilkhand University, Bareilly (U P.)	Dr. (Miss) Beena Shah Director, IASE M.J P. Rohilkhand University, Bareilly, (U.P)
Nov 22-23 2000	National Symposium on Acoustics-2000	Theme Research and Application in condition Monitoring using Acoustical Methods	St Joseph's College, Tiruchirapalli	M Kalidoss, Convener, NSA-2000, Deptt of Physics, St Joseph's College, Tiruchirapalli E-mail-nsa-2000@sjctni-edu Fax 0431-701501

BOOK REVIEW

Good Planning — Poor Content

M.H. Hirani*

P.C. Tulsian. *Business Law,* New Delhi, Tata McGraw-Hill Publishing Co. Ltd., 1998. Rs. 108/-.

This is a book written with laudable intention of catering to academic needs of students, professionals, practitioners and businessmen. Towards this end, planning of the book is good. The book is well-structured and well planned.

But, the problem is the author's presumption that the CA, CS, ICWA and MBA students need not know the law. Such students need only know what questions and problems can be expected in their respective examination. So if the students know the expected questions, and expected answers, they can cram the same, and disgorge the stuff in the examination and get through the ordeal; without learning the law in the process.

To the credit of the author, it must be said that as an experienced teacher, he has understood the mechanical and sterile examination system rather well. With computer like precision, the author has laid down expected questions and problems. He has also told the student about component of the expected answers. But when he actually writes answers, content is either sketchy, or cursory, or mechanical, or almost missing.

This reviewer has yet to see a book which treats law with such contempt. The years and citation

of cases are not given. Business law is mostly case-law. This part of law is missing. Another component of law is statutes. The author does not think it necessary even to give relevant numbers of sections of the statutes.

Surely, standard of CA, CS, ICWA and MBA is not so low.

Nevertheless, the book has value. The students need not purchase previous question paper sets. The author is a good paper setter within system of present examination system, as understood by him.

As pointed out earlier, planning the book structure is good. But, a computer could have written a better book than this. But to write a book on law, still, a human author is needed.

How a businessman and a professional practitioner can benefit from this book is beyond comprehension of this reviewer.

The structure of the book is good. The reader knows what he must read. But the content is negligible, for that the reader shall have to hunt for a book with content of law. ❏

Faculty of Law, University of Pune, Ganeshkhind, Pune-411 007.

COMMUNICATION

Franchising of Universities

I refer to the communication "Franchising of Universities" (*University News* February 7, 2000) from Zakir Hussain, in response to my earlier communication on the subject. I am aware, as Hussain had correctly guessed, that Makhanlal Chaturvedi Rashtriya Patrakarita Vishwavidyalaya is an all-India Institute. What, however, I said was that instead of pursuing its declared objective of promoting education in Hindi journalism, "it has taken recourse to franchising indiscriminately the BCA course all over India." If franchising is considered a legitimate delivery system of education, why did it not franchise well-structured courses in Hindi journalism which is the need of the

day? Hussain says that the franchisee institutions are not "private ones" as mentioned by me, because they are "run by Registered Educational Societies and Trusts incorporated under an appropriate Act". Despite this, they remain private bodies as distinct from government societies. The focus of my communication was on the misleading advertisements published by the franchisees. What kind of monitoring the universities really do if they cannot even stop such advertisements?

A.K. Dasgupta
A 203 San Remo Apartments,
10-1-128 Masab Tank,
Hyderabad-500 028

TEZPUR UNIVERSITY
(A Central University established by an Act of Parliament)
Napaam, Tezpur-784 028, Assam

ADMISSION NOTICE FOR THE SESSION 2000-2001

Applications are invited from the intending candidates for admission to the following Programmes of studies.

1. **M.Sc. in Polymer Science** : *Eligibility* : B.Sc. under 10+2+3 pattern with at least 50% marks or equivalent grade having Chemistry as the major subject and Physics and Mathematics as general subjects.

2. **MCA** : *Eligibility* : A bachelor's degree of minimum three years duration in any discipline with at least 50% marks in aggregate or in the major subject of the qualifying examination or equivalent grade and having passed in Mathematics as a subject at 10+2 level.

3. **M.Tech. in Electronics Design & Technology** : *Eligibility* : B.E./B.Tech, AMIE in Electronics/Electrical or M.Sc. in Electronics/Physics (Electronics as a specialization) AMIETE, from a recognised institution with at least 55% marks or equivalent grade. Candidates with GATE score above 80% will be preferred.

4. **Diploma in Repair & Maintenance of Consumer Electronic Equipments (R & M CEE)** : *Eligibility* Higher Secondary (10+2 science stream). However, educational qualification may be relaxed down to HSLC in case of sponsored candidates and candidates having a minimum of two years practical experience in the field of Electronics

5. **M.Tech. in Energy Technology** : *Eligibility* . B E./B.Tech degree in Mechanical/Electrical/Chemical/Agricultural Engineering with first class or M.Sc. in Physics/Chemistry with at least 55% marks

6. **M.A. in English** : *Eligibility* : A bachelor's degree with at least (i) 45% marks in English major or equivalent grade or (ii) 50% marks in English as a subsidiary subject in three year degree course with at least 45% marks in aggregate or equivalent grade.

7. **M.Tech. in Information Technology** : *Eligibility* · B E./B.Tech. degree in Computer Science/Engineering However, students with the following qualifications will also be considered provided they have a Postgraduate diploma in Computer Science and Applications
   (a) B E./B Tech degree in any disciplines other than Computer Science
   (b) M.Sc degree in Electronics. Physics or Mathematics.
   Sponsored candidates will have to submit a declaration from their respective employer stating his release for the above period.

8. **M.A./M.Sc. in Mathematics** : *Eligibility* : B.A./B.Sc. with major/honours in Mathematics. Physics or Statistics under (10+2+3) or an equivalent pattern of education from a recognised university either with a minimum of 50% marks in the major subject or 50% marks in aggregate are eligible to apply for admission Candidates with major/honours other than in Mathematics must have Mathematics as one of the subjects with 50% marks in B.A./B.Sc.

9. **M.Sc. in Physics** : *Eligibility* : B.Sc. with at least 50% marks or equivalent grade in Physics major The candidates also should have Mathematics as one of the subsidiary subjects in B.Sc course.

10. **M.A. (Modular) in Cultural Studies** : *Eligibility* : Bachelor's degree in Arts/Science/Commerce (including Music & Fine Arts) with major/honours or at least 45% marks in aggregate or equivalent grade from any recognised University/ Institution. Sponsored candidates are also eligible to apply for admission alongwith a sponsorship certificate from their employer to the effect that the candidate(s) shall be allowed to pursue his/her studies on full time basis. For a sponsored candidate, the percentage of marks will not be insisted upon.

PROVISIONAL ADMISSION : Applicants who have appeared/are appearing in the qualifying degree examination in 2000 may also be admitted provisionally, if otherwise found eligible at the Admission Test on the condition that, if admitted, they must produce the evidence of passing the qualifying examination with eligibility norms before 16.10.2000, failing which such admission will automatically stand cancelled.

For all programmes, minimum eligibility marks is relaxed by 5% for SC/ST candidates and seats are reserved as per Central Govt. Rules

SELECTION : On the basis of performances of candidates in Admission/Aptitude Test and/or Interview.

HOW TO APPLY : Application form together with prospectus may be obtained either personally from the University Office by paying Rs. 100/- (Rupees one hundred) only in cash or by sending a request together with a self addressed unstamped envelope of size 27 cm x 23 cm superscribed "**ADMISSION 2000**" accompanied by a Bank Draft for Rs. 130/- (Rupees one hundred and thirty) only payable to Tezpur University at Tezpur from 19.4.2000 to 10.5.2000.

LAST DATE : The last date of receipt of completed application is **10th May '2000.**

The University will not be responsible for any postal delay/loss of forms in transit.

<div align="right">

Dr. B. Sahariah
ACADEMIC REGISTRAR

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THESES OF THE MONTH

A list of doctoral theses accepted by Indian Universities (November-December, 1999)

AGRICULTURAL & VETERINARY SCIENCES

Forestry

1. Amarinder Kaur. Impact of forestry extension programmes on rural women of Ambala District in Haryana. (Dr S S Negi), Department of Forestry, Forest Research Institute, Dehradun.

2. Biswas, Subhash Chand. Chemical, biochemical and nutritional analysis of selected forest and hybrid legume seeds by conventional methods and new assay development by instrumentational methods. (Dr S S Bisen and Dr N K Saxena), Department of Forestry, Forest Research Institute, Dehradun.

3 Devagiri, G M. Evaluation of seed source variation in seed and seedling traits in Dalbergia sissoo Roxb. (Dr R C Dhiman and Dr R C Thapliyal), Department of Forestry, Forest Research Institute, Dehradun

4 Himmat Singh, K C. Survey, identification and distribution of leguminous and non-leguminous nitrogen fixing plants vis-a-vis nodulation behaviour in relation to altitudinal variations from Terai to tree-line in the forest of Eastern Nepal. (Dr T C Pokhriyal), Department of Forestry, Forest Research Institute, Dehradun.

5 Jayasankar, B Economic analysis of forest resource management : A study of bamboos in Kerala. (Dr P K Murleedharan), Department of Forestry, Forest Research Institute, Dehradun

6 Khatri, Nanita Study of agroforestry systems with reference to agriculture crop rotation. (Dr Jamaluddin), Department of Forestry, Forest Research Institute, Dehradun

7 Lal, R B. Studies on socio economic factors associated with tree planting practices in farm sector of Madhya Pradesh with special reference to Chattisgarh Region. (Dr B N Gupta and Dr P J Daleep Kumar), Department of Forestry, Forest Research Institute, Dehradun

8 Md Saleem. Studies on mass propagation of Phyllostachys pubescens and Dendrocalamus giganteus through tissue culture and macro proliferation. (Dr N K Joshi), Department of Forestry, Forest Research Institute, Dehradun

9 Nandeshwar, D L. Impact of mining on environment and socio economic condition of people with special reference to Bisrampur Coal Mines. (Dr S K Banerjee), Department of Forestry, Forest Research Institute, Dehradun.

10. Panwar, B P S. Study of soil changes under Poplar (Populus deltoides marsh) based agro-forestry systems in North Western Uttar Pradesh, India. (Dr R M Singhal), Department of Forestry, Forest Research Institute, Dehradun.

11. Ramachandra, N G. Provenance variation in seed and seeding parameters in Acacia catechu Wild. (Dr R C Thapliyal), Department of Forestry, Forest Research Institute, Dehradun.

12. Selven. Progeny testing and in Vitro propagation of Acacia catechu willd. (Dr P S Chauhan), Department of Tree Improvement and Genetic Resources, Dr Yashwant Singh Parmar University of Horticulture and Forestry, Solan.

13. Sharma, Sushma. Improvement in propagation and establishment of bamboos through tissue culture techniques. (Dr Sarita Arya and Dr I D Arya), Department of Forestry, Forest Research Institute, Dehradun.

14. Shashi Kumar. Biomass and nutrient dynamics in a restored mine ecosystem of Doon Valley. (Dr P Soni), Department of Forestry, Forest Research Institute, Dehradun.

15. Sushil Kumar. Social forestry project of Himachal Pradesh : An evaluative study. (Dr S S Negi), Department of Forestry, Forest Research Institute, Dehradun.

16. Varshneya, Geeta. Environmental impact asessment of social forestry in Western U P using soil changes as indicators. (Dr R M Singhal), Department of Forestry, Forest Research Institute, Dehradun.

17 Yadav, Anil Kumar. Studies on the performance of some medicinal and aromatic plants under Poplar (Populus deltoides -3) plantation in Kumaun foot hills. ((Dr R M Singhal), Department of Forestry, Forest Research Institute, Dehradun.

BIOLOGICAL SCIENCES

Botany

1. Poornachandra Rao, S. Sexual systems and pollination ecology of four economically important tree species. (Dr A Janaki Bai), Department of Botany, Andhra University, Waltair.

2 Sunita Kumari. An ethnobotanical study of Archaean cosmetics mentioend in Ramayan. (Dr Vishwa Vihari), Department of Botany, B R Ambedkar Bihar University, Muzaffarpur.

Microbiology

1. Vaidya, Shruti Microbial pollution at Bhavnagar coast. (Prof H C Dube), Department of Microbiology, Bhavnagar University, Bhavnagar.

Zoology

1 Choudhury, Arundhati. Biochemical studies on certain enzymes of carbohydrate metabolism at some stages of development of silkworms Antheraca Assam West wood and Philosamia ricini boisduval. (Dr B G Unni and Prof H C Mahanta), Department of Zoology, Gauhati University, Guwahati.

2. Saharawat, Ashok Kumar. In vitro studies on morphogenesis and cytological variation in some genotypes of Hordeum vulgare L and Oryza sativa L. (Dr Suresh Chand), Department of Zoology, Devi Ahilya Vishwavidyalaya, Indore

EARTH SYSTEM SCIENCES

Environmental Science

1. Panda, Saroj Kumar. Water quality and Biotic community structure in some fresh water ponds of Bargarh Town. (Prof Madhab C Dash), Department of Environmental Science, Sambalpur University, Jyoti Vihar, Burla.

Soil Science

1. Kadam, Bhagwan Sahebrao. Nitrogen, Phosphorus and potassium requirment of rabi onion based on targetted yield

concept. (Dr K R Sonar), Department of Soil Science, Mahatma Phule Krishi Vidyapeeth, Rahuri.

ENGINEERING SCIENCES

Biotechnology

1. Tiwari, Ashutosh. Differential scanning calorimetric studies on the thermal stabilization of yeast hexokinase A by solvent additives. (Dr Rajiv Bhat), Centre for Biotechnology, Jawaharlal Nehru University, New Delhi.

Civil Engineering

1. Sarma, Arup Kumar. A study of two dimensional flow propagating from an opening in the river dike. (Dr M M Das), Department of Civil Engineering, Gauhati University, Guwahati.

Electrical Engineering

1. Mohamed Zaid Abdulkarim. Simulation study of cycloconverter fed induction motor drive. Department of Electrical Engineering, University of Roorkee, Roorkee.

Instrumentation

1. Nagabhushan Raju, K. Development of an intelligent instrumentation system and its application for the study of solute-water interactions. (Dr S Rajaratnam), Department of Instrumentation, Sri Krishnadevaraya University, Anantapur

MATHEMATICAL SCIENCES

Mathematics

1 Nirupama Devi. Studies on solitary waves in plasma. (Prof B C Kalita), Department of Mathematics, Gauhati University, Guwahati.

2. Sinha, Tushar Kumar. On some properties of eigen values of linear operators. Department of Mathematics, Magadh University, Bodh Gaya.

Statistics

1. Mini, L. Some results on setting the clock back to zero property. (Dr V K Ramachandran Nair), Department of Statistics, Cochin University of Science and Technology, Kochi

MEDICAL SCIENCES

Immunology

1. Tiwari, Gunjan. Buffalo growth hormone : Cloning, expression and functional analysis. (Dr Lalit C Garg), National Institute of Immunology, Jawaharlal Nehru University, New Delhi.

PHYSICAL SCIENCES

Biochemistry

1. Harvinder Kaur. Biochemical studies on lipopolysaccharides of Rhizobium leguminosarum biovar trifolii during plant bacterium symbiosis. Department of Biochemistry, Punjab Agricultural University, Ludhiana.

2. Singh, Anita. Studies on biotransformation of lantadenes: The hepatotoxins in Lantana (Lantana camara L) plant. (Dr Sudarshan Ojha and Dr Om P Sharma), Department of Biochemistry, Panjab University, Chandigarh.

Chemistry

1. Ahuja, Preeti Bala. The evaluation of microbial pollution control by some organic phosphates with their kinetic and resistivity in the environment. (Dr R K S Bhadoria), Department

of Chemistry, Rani Durgavati Vishwavidyalaya, Jabalpur.

2. Bakshi, Shilpi. Synthetical studies on some nitrogen heterocycles. (Dr K K Srivastava), Department of Chemistry, Vinoba Bhave University, Hazaribag.

3. Chintalapati, Ravi. Development of new visible spectrophotometric methods for assay of selected drugs. (Dr Ch Surya Prakasa Sastry), Department of Chemistry, Andhra University, Waltair.

4. Deka, Nabajyoti. Disciplined radicals in organic synthesis with special emphasis on the synthesis of bioactive molecules or part thereof. (Dr J C Sarma and Dr D C Deka), Department of Chemistry, Gauhati University, Guwahati.

5. Kalita, Dipak. Chemical transformation and total synthesis of bioactive natural products with special emphasis on macrocyclic lactones and modified steroids. (Dr N C Barua and Dr P J Das), Department of Chemistry, Gauhati University, Guwahati.

6. Mitra, Prasanta Kumar. Studies on the antithiamine factor present in Phaseolus radiatus. Department of Chemistry, University of North Bengal, Raja Rammohunpur, Distt Darjeeling.

7. Pancras, J Patrick. Trace determination of some toxic metals in complex samples after solid phase extraction as their metal-2-(-5-Bromo-2 pyridylazo)-5-diethylamino phenolates. (Prof B K Puri), Department of Chemistry, Indian Institute of Technology Delhi, New Delhi

8. Ramanuja Swamy, J. Transition metal complex Schiff bases with 2-aminonicotinaldehyde. (Dr B Swamy), Department of Chemistry, Kakatiya University, Warangal.

9 Sahu, Pabitra. Studies on the analytical Chemistry of trace amounts of aluminium, zirconium and fluorine and phase analysis of Fe (II)-Fe(III) in refractories and other ceramic materials. (Dr B C Sinha), Department of Chemistry, Sambalpur University, Jyoti Vihar, Burla.

10 Thorat, Ravikumar Bhagwan Reactivity of u-Oxo-u-Carboxylato Diruthenium complexes. (Dr Amjad Hussain), Department of Chemistry, Bhavnagar University, Bhavnagar

Physics

1. Bezboruah, Tulshi. The Cosmic Ray detection by mini array method. (Dr K Baruah and Dr P K Baruah), Department of Physics, Gauhati University, Guwahati.

2. Daya Sagar, P Krishna. Studies on electrical, optical absorption and luminescence properties of pure and certain rare earth doped $KF-B-2O3$ glasses. (Prof K Satyanarayana Murthy), Department of Physics, Osmania University, Hyderabad.

3. Kasturi, T Lakshmi. Crystal structure and paramagnetic resonance studies on some fluoroaluminates. (Dr V G Krishnan), Department of Physics, Osmania University, Hyderabad.

4 Phukan, Thunu. Effect of heavy ion irradiation on the electrical and dielectric properties of CR-39 SSNTD. (Prof H L Das and Prof T D Goswami), Department of Physics, Gauhati University, Guwahati.

5. Soni, Basant Kumar. Studies on the effect of plastic deformation on the thermoluminescence of alkali halide crystals doped with alkaline earth impurities. (Dr B P Chandra and Dr S S K Beebar), Department of Physics, Guru Ghasidas University, Bilaspur.

वन अनुसंधान संस्थान, सम विश्वविद्यालय

(भारतीय वानिकी अनुसंधान एवं शिक्षा परिषद्)

FOREST RESEARCH INSTITUTE, DEEMED UNIVERSITY
(INDIAN COUNCIL OF FORESTRY RESEARCH & EDUCATION)
POST : I.P.E. KAULAGARH ROAD, DEHRA DUN-248 195

ADMISSION NOTICE 2000-2001

An Entrance Test on All India basis for admission to the following courses will be held on **2.7.2000.**

I. (a) **M.Sc. Forestry (Economics and Management) :**
    Eligibility Bachelor's degree in Science with at least one of the subjects namely Botany, Chemistry, Geology, Mathematics, Physics and Zoology or a Bachelor's degree in Agriculture of Forestry.

   (b) **M.Sc. in Wood Science and Technology :**
    Eligibility Bachelor's degree with Physics, Mathematics and Chemistry or B Sc. degree in Forestry.

   (c) **M.Sc. in Environment Management :**
    Eligibility Bachelor's degree in any branch of basic or applied Sciences or Bachelor's degree in Forestry or Agriculture or BE in Environment Science

   (d) **Post-graduate Diploma in Plantation Technology : (1 year duration)**
    Eligibility · Postgraduate degree in Botany, Zoology, Chemistry subjects and must have studied Botany at the graduate level or M Sc in Agriculture

   (e) **Post-graduate Diploma in Pulp and Paper Technology : (1 year duration)**
    Eligibility Postgraduate degree in Chemistry or Applied Chemistry or Industrial Chemistry and must have studied Physics at the graduate level

   (f) **Postgraduate Diploma in Biodiversity Conservation : (1 year duration)**
    Eligibility M Sc in any discipline

II. *Age Limit and Percentage of Marks* The minimum age limit for admission to M.Sc. and Postgraduate Diploma courses shall be 19 and 21 years, respectively, as on 31 12 2000 Candidates having 50% or above marks and 45% marks for Scheduled Castes/Scheduled Tribes may apply
   Financial Aid Studentship of Rs 1000/- p m will be available to all the admitted students except in-service candidates in each course subject to availability of aid from funding agency
   Centre of Examination : (1) Dehra Dun, (2) Jabalpur, (3) Bangalore, (4) Calcutta, (5) Chandigarh and (6) Delhi

III. Number of seats are 10 in PG. Diploma in Pulp and Paper Technology Course and 15 in other courses. Five seats in M Sc in Environment Management and Postgraduate Diploma in Biodiversity Conservation courses shall be reserved for in-service candidates working in Government Departments, Autonomous bodies and other reputed Organizations including NGOs In-service candidate is required to appear in the Admission test. The details about the mode of examination is laid down in Information Bulletin. In case of non availability of in-service candidate the seats will be filled up by general candidate(s)

IV. *How to apply* Information Bulletin and application form can be obtained by post from Registrar, Forest Research Institute (Deemed University), Post . I P E , Kaulagarh Road, Dehra Dun-248'195 by submitting a Bank Draft for **Rs. 300/- (Rupees Three Hundred Only)** in favour of Registrar, Forest Research Institute (Deemed University), payable at the Union Bank of India. FRI, Dehra Dun. While requesting for Application Form and Information Bulletin following information should be given .

   (i) Name (in capital letters). (ii) full postal address. (iii) the course in which candidate wants admission.

   Application Forms will be available from **25th March to 10th May 2000** from counter of the office and by post upto **1st May 2000.** The last date for receipt of applications is **11th May 2000.** For details please refer to Information Bulletin 2000-2001.

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DIRECTOR
F.R.I., (Deemed University)

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वैज्ञानिक तथा औद्योगिक अनुसंधान परिषद्
COUNCIL OF SCIENTIFIC & INDUSTRIAL RESEARCH
अनुसंधान भवन, 2, रफी मार्ग, नई दिल्ली-110 001
Anusandhan Bhawan, 2, Rafi Marg, New Delhi-110 001

Advertisement No. 2/2000

Council of Scientific and Industrial Research (CSIR) is the premier agency established by the Government of India to undertake scientific/industrial research in the country. It has a network of 40 R&D institutions spread throughout the country, covering diverse S&T disciplines and services a wide gamut of socio-economic sectors.

The Director, is the Chief Executive of the laboratory and is responsible among other things for realising the mission of the laboratory.

The Council is looking for suitable scientists/technologists for the posts of Director for its following national Labs./Instt. :

DIRECTOR, NATIONAL PHYSICAL LABORATORY (NPL), NEW DELHI

NPL Delhi is a multidisciplinary laboratory entrusted to establish National standards of measurement and to carry out R&D in various areas of Physics. The major R&D programmes of NPL include establishing standards of measurements and calibration; materials characterization and development such as for silicon, carbon piezoelectrics, superconducting and radio and atmospheric physics

The Laboratory is manned by staff of around 1200 of which around one fourth are scientists. The annual budget is around Rs. 30 crore.

QUALIFICATIONS FOR THE POST :

1st Class M.Sc./B.E. or recognised equivalent qualification with not less than 65% marks with 16 years of experience of M.Tech./M.E./M.S. with 14 years of experience or Ph.D (Science) with 13 years of experience or Ph.D (Engg.) with 12 years experience in the R&D areas of the laboratory.

DIRECTOR, CENTRAL MECHANICAL ENGINEERING RESEARCH INSTITUTE (CMERI), DURGAPUR

CMERI, Durgapur has under it four Mechanical Engineering Research & Development Organisation (MERDO) units located at Chennai, Cochin, Ludhiana and Pune. The major R&D programmes of the Institute relate to design and development of industrial machinery and post harvest processing equipment; applications of emerging manufacturing technologies and residual life assessment of equipment.

The annual budget of the Institute is around Rs. 26 crore and it has a total staff strength of around 1000 out of which about 150 are scientists.

QUALIFICATIONS FOR THE POST :

1st Class B.E. or recognised equivalent qualification with not less than 65% marks with 16 years of experience or M.Tech/M.E./M.S. with 14 years of experience or Ph.D. (Engg.) with 12 years of experience in the R&D areas of the Institute.

DIRECTOR, STRUCTURAL ENGINEERING RESEARCH CENTRE (SERC), CHENNAI

The major R&D programmes of the Centre relate to analysis, design, dynamics, construction, repair and rehabilitation of structures such as bridges, towers, off-shore & power plant; expert systems and parallel computing; structural concrete and concrete composites and wind engineering. SERC has a total staff strength of around 300 including about 100 scientists. The annual budget is around Rs. 10 crore.

QUALIFICATIONS FOR THE POST :

1st Class B.E. or recognised equivalent qualification with not less than 65% marks with 16 years of experience or M.Tech./M.E./M.S. with 14 years of relevant experience or Ph.D. (Engg.) with 12 years of relevant experience in the relevant R&D areas of the Centre.

DIRECTOR, CENTRAL BUILDING RESEARCH INSTITUTE (CBRI), ROORKEE

CBRI has six extension centres, one each at Calcutta, Ahmedabad, Bhopal, Hyderabad, Trivandrum and New Delhi. The R&D Programmes of the Institute include habitat planning and design; building architecture, designs, foundations, construction technologies and techniques, materials and components; alternative building materials; fire R&D; and natural hazards mitigation related to habitat and built spaces. The Institute has an annual budget of around Rs. 15 crore and S&T manpower of around 500 of which about one-third are scientists.

QUALIFICATIONS FOR THE POST :

1st Class B.E. or recognised equivalent qualification with not less than 65% marks with sixteen years of experience or M.Tech./M.E./M.S. with 14 years of relevant experience or Ph.D. (Engg.) with 12 years of experience in the R&D areas of the Institute.

The candidates for the post must be creative, innovative and well-established scientists/technologists of distinction in the areas of the Institutes and should preferably be around 50 years of age. Relaxation in age limit, qualification and/or experience is permissible in case of exceptionally meritorious candidates. This is a contractual appointment for a period of six years or upto superannuation (at the age of 60 years) whichever is earlier. The contract however could be extended in exceptional cases. They should possess leadership qualities covering inter-alia, a demonstrated ability to create an environment conducive to nurturing of high class R&D talent a proven record of inter-personal skills and an ability to communicate effectively.

PAY, ALLOWANCES AND FACILITIES :

The post carries the pay scale of Rs. 18,400-500-22,400 plus allowances as admissible to CSIR employees, with facility to share the monies realised from external contract R&D, consultancy and rendering of S&T services. Residential accommodation and conveyance facilities are provided as per CSIR rules.

Interested candidates may send their complete biodata by **15th May, 2000** to the Director-General, CSIR, Rafi Marg, New Delhi-110 001 (FAX-3710618; E-mail:dgcsir@csirhq.res.in).

ANNOUNCEMENT OF A FOUR WEEK FACULTY UPGRADATION PROGRAMME IN ENVIRONMENTAL ECONOMICS UNDER THE WORLD BANK AIDED ENVIRONMENTAL MANAGEMENT CAPACITY BUILDING TECHNICAL ASSISTANCE PROGRAMME

AT

MADRAS SCHOOL OF ECONOMICS
GANDHI MANDAPAM ROAD, CHENNAI-600 025

Applications are invited from faculty of postgraduate departments of Economics in Universities and colleges affiliated to Universities in India for a four week advanced training programme in Environmental Economics from September 4 to 29, 2000 to be held at Madras School of Economics (MSE).

Eligibility Criteria :

Applicants must be less than 50 years of age as on May 31, 2000 and must have at least (a) 55 per cent marks in M.A. as per UGC guidelines; and (b) five years of experience of teaching Economics at the MA level. Other things being equal, applicants with knowledge of mathematics and teaching experience in environmental economics will be preferred. Candidates who have already participated in similar programmes in environmental economics are not eligible.

The application must be accompanied by (i) a statement of 500 words on a topic in Environmental Economics which can be later developed by the candidate as a short discussion paper to be presented for group discussion during the programme: (ii) information about course(s) taught and research completed during the last five years: and (iii) evidence of knowledge of quantitative methods in economics.

Cost :

The entire cost of selected candidates for participating in the programme will be met by MSE. It will include either 1st class or 2nd AC train fare for the shortest route from the parent institute/college to Chennai, boarding and lodging (at MSE) and supply of course material. Outstation participants will be provided accommodation at MSE. Participants from Chennai will be provided lunch and tea and local travel allowance.

Applications, with full details about educational qualifications, teaching and research experience, current Institutional/University/College affiliation, shoud be sent through the proper channel to the following address **before May 31, 2000.**

> **Prof. Paul Appasamy,**
> **Director, Madras School of Economics**
> **Gandhi Mandapam Road**
> **Chennai-600 025.**
> **Ph : 044-2300304; Fax : 044-2352155; Email: ppasamy@hotmail.com.**

> Selected candidates will be intimated **on or before July 10, 2000.**

COUNCIL OF SCIENTIFIC & INDUSTRIAL RESEARCH

Human Resource Development Group
CSIR Complex, Opp. Institute of Hotel Management
Library Avenue, Pusa, New Delhi-110 012

ADVERTISEMENT NO. SRF/RA — EMR-2/2000

This is to bring the attention of all concerned that CSIR has invited applications for awarding SENIOR RESEARCH FELLOWSHIP, SENIOR RESEARCH FELLOWSHIPS (EXTENDED) and RESEARCH ASSOCIATESHIPS vide an advertisement appearing in 15th April' 2000 issue of EMPLOYMENT NEWS. Eligibility conditions and application proforma has been published alongwith the advertisement. The application form may be cut out from advertisement and used.

The last date of receiving application is 15th May, 2000. The applications duly completed in all respects should be sent to the Deputy Secretary, Extra Mural Research Division, Human Resource Development Group. CSIR Complex, Library Avenue, Pusa, New Delhi-110 012.

VALLABHBHAI PATEL CHEST INSTITUTE
University of Delhi, P.O. Box No. 2101
Delhi-110 007

Ref: VPCI/Admn/Rectt/2000   **Dated: 31st March, 2000**

Applications are invited on the prescribed forms for the following posts, so as to reach the Dy Registrar at the above mentioned address latest by April 30, 2000.

S.No.	Posts	Scale of Pay/Honorarium
01	Assistant Registrar	Rs 8000-275-13500
02	Sr Resident in Respiratory Medicine	Rs 10940-355-11850
03	Honorary visiting Anaesthetist (Part-time)	
04	Honorary visiting Radiologist (Part-time)	
05	Honorary visiting Pathologist (Part-time)	Rs 5000/- PM (for work-load per week upto 7-10 hours)
06	Honorary visiting Thoracic Surgeon (Part-time)	
07	Honorary visiting ENT Specialist (Part-time)	

The post at Sri No 01 carries DA, CCA, HRA etc as admissible under rules of the Institute from time to time.

Application forms for the above posts & details regarding qualifications (both essential and desirable) can be obtained from the office of the Dy Registrar, 2nd floor, Main Building of the Institute during working days (from 10.00 A.M. to 12.00 Noon and 2.00 P.M. to 5.00 P.M.) either personally or by sending a self-addressed envelope worth Rs 26/- (Size 23 cms x 28 cms.).

APPLICATION FEE : Application fee is Rs. 100/- (Rs 25/- in case of SC/ST) (Non-refundable) for each post in form of demand draft drawn in favour of "DIRECTOR, VPCI, DELHI" is required to be submitted along with application form. Candidates must write their name & post applied at the back of D.D

Note :
1. Institute reserves the right not to fill up the post advertised if circumstances so warrant.
2. Relaxation of any of the qualification may be made in exceptional cases on the recommendations of Selection Committee.
3. Reservation for SC/ST/OBC etc. exists as per rules.
4. The Institute reserves the right to consider cases of candidates who may not have applied

Dr. Binod Kumar Singh
DY. REGISTRAR

THE MUSLIM EDUCATIONAL SOCIETY (REGD.)
CALICUT-1

MES/AC/E-460/99　　　Dated : 1-4-2000

WANTED

Applications are invited with full Bio-data from qualified candidates for the post of Lecturers in the undermentioned subjects in M E.S Collegiate Service under Calicut University (GENERAL MERIT)

1. Geology — 4 posts — Master's Degree in the subject with 55% of marks with NET Qualification

2 Part-Time Lecturer in Geo-Statistics — 1 post — Master's Degree in the subject with 55% of marks with NET Qualification

3 Part-Time Lecturer in Computer Application — 1 post — MCA with NET Qualification

Age and Scale of Pay : As prescribed by the Government/University

No separate application form Apply within **30 days** with full Bio-data with a D.D for Rs. 250/- (Rupees Two hundred and Fifty only) drawn in favour of the General Secretary. M E S (Regd.), Bank Road, Calicut-1, in the address stated above Candidate who have al-

ready applied for the post of Lecturer in Applied Geology in response to our advertisement of even No. Dated 27 4 99 may apply afresh Such candidates need not pay any fee towards applying Candidate fully qualified at the time of applying need apply

C.K. Muhamed, IPS (Retd.)
GENERAL SECRETARY

NIRMALA EDUCATION SOCIETY
Altinho, Panaji, Goa-403 001

Applications are invited for the post of Principal of Nirmala Institute of Education, Altinho, Panaji. Goa-403 001

A. Minimum Qualifications

1 The applicant should be an approved teacher in a College or University, with contributions to educational innovations, design of new courses and curricula

2 (a) He/She should have good academic record with Ph D degree or an equivalent published work and at least 8 (eight) years of teaching experience at the level of lecturer or above, in a College or University.

OR

(b) Good academic record with M Phil degree and at least 10 (ten) years of teaching

experience at the level of lecturer, or above, in a College or University

B. Scale of Pay

Rs 12000-420-18300 plus admissible allowances as per Government rules

C. Date of Joining

05-06-2000 (June 5th, 2000)

D.
Applications stating Full Name, address, date of birth, educational qualifications, teaching and administrative experience, research papers published, list of papers presented/read in Seminars/Conferences, cocurricular and extra-curricular activities participated and conducted alongwith certified copies of statement of marks at all the University Examinations from S S C and onwards and experience certificate should reach the undersigned **within 15 (fifteen) days** from the date of publication of this advertisement

E. Applicant should

(a) send the applications through proper channel

(b) account for breaks, if any, in the academic career or services

Place : Panaji, Goa　　Ms. Noemia D'Souza
Date : 03.04.2000　　　　VICE-PRESIDENT

TEZPUR UNIVERSITY
Napaam, Tezpur-784 028
Ph.D ADMISSION NOTICE FOR THE SESSION 2000

Applications are invited for the Ph.D Programme commencing from autumn semester '2000 in the following departments and Research Areas

1 Department of Business Administration · Areas Human Resource Management
2 Department of MBBT · Areas Development of Plant Based Fish Feed
3 Department of Computer Science Areas · Mobile Computing
4. Department of Physics Areas (i) Condensed Matter Physics/Material Science (ii) High Energy Physics
5 Department of Electronics Areas Microwave Antenna, Industrial Instrumentation, Image Processing and Colour Matching for Industrial Automation
6. Department of English Areas Literature on English
7. Department of Chemical Sciences : Areas · Composite Material, Liquid Crystaline Polymer, Wood Composite, Rubber, Synthetic and Bio-Inorganic Chemistry, Physical Chemistry/Surfactants, Synthetic Organic Chemistry

Eligibility : Uniform academic career with at least second class master degree in the concerned subject with minimum 55% marks or with minimum grade point average of 6.0 on ten point grading system B E candidates with exceptional merit having at least 70% marks or with minimum grade point average of 7.5 on the ten point grading system may also apply

How to apply : Application on plain paper with the following information . (a) Name (b) Father's Name (c) Date of birth & age (d) Sex (e) Academic qualifications (from HSLC onwards, names of Boards/Universities, Percentage of marks/rank/grade/division, photocopy of mark sheets/grade cards/certificates/degrees) (f) GATE/NET scores if available (g) Any other relevant information.

Selection will be made in June '2000 on the basis of a screening test to be conducted by the concerned department. Applications may be sent to Academic Registrar, Tezpur University, Napaam, Tezpur-784 028

The last date for receiving application is **10th May '2000.**

Dr. B. Sahariah
ACADEMIC REGISTRAR

INDIRA GANDHI NATIONAL OPEN UNIVERSITY
Maidan Garhi, New Delhi - 110068.

CERTIFICATE PROGRAMME
"EMPOWERING WOMEN THROUGH SELF-HELP GROUPS"
Commencement of Certificate Programme : July 2000 session

The Certificate Programme "Empowering Women Through Self-Help Groups", offered by IGNOU in collaboration with Department of Women and Child Development (Government of India), is an innovative programme utilising self-instructional materials (Print / Audio / Video) and information technology along with interactive counseling/face-to-face contact sessions. The programme aims at developing understanding and competencies required by practitioners, for effective teaching/learning process at field level, by training master trainers of Self-Help Groups (SHGs) working at the grassroot level in rural as well as urban areas. The target group would compromise SHGs working on health, nutrition, agriculture, micro-credit, finance and other development schemes undertaken by Govt. and NGOs. The content of the course material for this programme is essentially a judicious mix of theoretical and practical work for the development of appropriate skills in knowledge, understanding and attitude of practitioners. Illustrations and cases of relevant situations and need-based activities compromise the core of each and every course of the programme

Eligibility of Admission	Duration	Medium of Instruction
18 years of age, ability to read/write Class VIII English Hindi, preferably development facilitators having a proven aptitude and interest in the area	Six months	English and Hindi

Programme Fee

The certificate programme fee is Rs. 1000 - The fees for DWCD nominees will be waived. The freeships will be for Programme Officers / Child Development Project officers (CDPO) working in ICDS. Practitioners of Central / State NGOs working for other women and child development programmes may also be considered for freeships. As an incentive National Bank for Agriculture and Rural Development (NABARD) would reimburse the course fee of the first thousand candidates who successfully complete the programme in the first attempt

Application Form for Certificate Programme

The application form in the programme guide and the prospectus can be obtained from all the IGNOU Regional Centres or IGNOU Headquarters. **Prof. Prabha Chawla, Project Director, Block 2, Room No.22, IGNOU, Maidan Garhi, New Delhi-110 068** in person on payment of Rs. 10/- in cash. The application form can also be obtained through post by sending an IPO or Demand Draft of Rs. 50/- drawn in favour of IGNOU payable at the city where the form is required by post. Please write your name and address clearly on the back of the demand draft

Last Date for Application

- Requisition for supply of prospectus/programme guide by post should be done before May 5*, 2000.
- Submission of forms with fee should be sent to the Project Director, IGNOU Headquarters or the IGNOU Regional Centres latest by May 15*, 2000
- Late and incomplete application forms without certified copies of the required certificates shall be summarily rejected by IGNOU. No correspondence in this regard will be entertained.

For further queries please contact the Project Director.

Prof. Prabha Chawla
Project Director

Tel No. 6962044, 6511624   Fax : 91-11-6524230   e-mail: prabhachawla@hotmail.com